

**Report of the two committees constituted by the Vice- Chancellor, Tezpur University  
for conducting the Academic and Administrative Audit of the University for 2013**

**Administrative Audit Committee**

1. Prof. D. J. Saikia, Vice-Chancellor, Cotton College State University.
2. Prof. K. G. Bhattacharyya, Dept. of Chemistry, Gauhati University.
3. Shri Debabrata Deb, Registrar, North Eastern Hill University, Shillong.

**Internal Co-ordinator**

Prof. S. S. Sarkar, Dean, School of Management Sciences. T.U.

**Academic Audit Committee**

1. Prof. A. C. Bhagabati, Former Vice-Chancellor, Rajiv Gandhi University.
2. Prof. B. P. Sinha, Advanced Computing and Microelectronics Unit, ISI, Kolkata.
3. Prof. Bharati Sharma, Retd. Prof. of IIPA, New Delhi.
4. Prof. P. Mahanta, Retd. Prof., Dept. of Physics, Dibrugarh University.
5. Prof. Uday S. Dixit, Dept. of Mechanical Engineering, IIT Guwahati.

**Internal Co-ordinator**

Prof. N. Deka Baruah, Dean, School of Sciences. T.U.

**Overall Co-ordinator**

Prof. Chandana Goswami, Director, IQAC, T.U.

## **Preamble**

The members of the two committees visited and conducted the audit work on 11-13 December, 2013. The members assembled at the University Guest House in the afternoon of 10<sup>th</sup> December and attended a preliminary briefing session along with the internal co-ordinators. On 11.12.13, there was an interactive meeting with the Vice-Chancellor, Pro-Vice Chancellor, Deans and HoDs and key administrative officials of the university. This was followed by visits to various departments, centres and other facilities in the course of two days. The report is outlined below.

## **General Observations**

At the outset, the members of the two committees would like to place on record their sincere thanks to the Vice- Chancellor and all other members of the university community for their gracious hospitality, ready and unstinted co-operation in completing the assigned task. The work became a pleasant experience for the members because of the help, assistance and cooperation received.

By way of general observation, the members express their satisfaction about the remarkable achievement of the university in a short span of 19 years since its inception. In their considered opinion, the university has gathered the critical mass for take-off in a well-charted trajectory for further development. Wonderful infrastructure is already in place for this edifice of higher education and research. But as the saying goes, there is no end to development initiatives. It is an unending exercise. It is here that the audit exercise under the IQAC Programme was launched to validate the self-appraisal exercise by external experts. The members of the two committees laud this effort of the university. The two committees have tried to pin-point the areas which need to be strengthened and developed further. We have purposively avoided the strength and capabilities already achieved by the university and have mainly focused on those areas and issues which require to be strengthened and further developed to fulfil the university's vision and mission. These are pointed out in the pages that follow.

## **Specific Recommendations**

1. The continuous evaluation system has lately been introduced in the university which has merits compared to a single end-semester examination system. However, interactions of the committee members with the students as well as the faculty have revealed some implementational problems of this system. For example, i) it has been pointed out that the 'objective type' questions are difficult to be designed in subjects of humanities groups, ii) on the other hand, duration of 20 minutes for each class test with short-answer type questions is considered to be inadequate, iii) the students feel pressurised due to the large number of such frequent class tests without having the conceptual understanding of the subject, iv) a large amount of teaching time is consumed in designing, conducting and evaluating the answer scripts of so many

tests. In view of these, the committee unanimously recommends that a brain-storming session may be initiated with all the stakeholders to find a suitable way out for the implementation of the continuous evaluation system. It is also recommended that the university may look into the continuous evaluation systems prevalent in other premier institutes/universities of the country.

2. The *Choice Based Credit Transfer (CBCT)* system is good in principle. However, as revealed from our interactions with the students and faculty, the minimum percentage (20%) of CBCT courses seems to be pretty much on the higher side, so that the students are compelled to take these courses at the cost of some of the more relevant elective courses of the concerned discipline. For example, for the 8-semester B.Tech. programme with 40 subjects, 8 CBCT courses are to be taken and by that, there will be very little room for opting the departmental elective courses. This may dilute their knowledge in the relevant programme. Therefore, the committee unanimously recommends again that a brain-storming session may be initiated among the stakeholders on this issue as well.
3. It has been revealed from the discussions with faculty, students and alumni members that the placement scenario is not up to the desired level. The percentage of on-campus recruitment is very small. The average salary offered by the companies is also not impressive. It is possible that the geographical location of the university poses a hindrance to the potential employers to physically come over here for conducting the written tests and interviews of the students. In this regard, it is recommended that the university authority may think of conducting such placement tests and interviews in its Guwahati campus, particularly during the weekends so that the students can go there for taking the tests, without being absent from their classes. At the same time, proactive measures may be taken up by the placement cell of the university to invite reputed organizations. The faculty members of different departments may also exploit their contacts, which they might have generated through research collaboration and consultancy works, with the persons working at various industries.
4. In view of the fact that there are projects/dissertation works in the B.Tech. and M.Tech. programmes and each such project/dissertation work should be supervised by a faculty member, the committee feels that all the engineering departments should have an increased number of faculty members. In the current scenario, a faculty member has to supervise, on an average, 6-8 students in addition to his/her classroom teaching, lab works, PhD supervision and his own research and administrative responsibilities. This seems to be pretty much demanding on the ability of a faculty member. Increasing the number of faculty members is therefore needed for maintaining the desired standard of the project/dissertation work of the students.
5. The eligibility criteria for becoming a PhD supervisor/co-supervisor may be revisited so that the young faculty members may get an opportunity to gain the experience of supervising PhD students right after obtaining their PhD degree. This would help the young faculty members build their research career in a relatively smaller span of time.
6. Evaluation of a faculty member in terms of API should also consider his/her contribution to socially useful and relevant projects, as equivalent to research work.

7. Old ladies' hostel building needs renovation/moving to a new building for a better and uniform living condition of the concerned students.
8. Students staying in the hostels during vacation for their preparations for different competitive examinations have to pay a considerable amount of hostel charge. This may be reduced appropriately.
9. Tuition fees of the PhD students may be considered for reduction, as many of such students come from lower economic stratum of the society, and not all of such students get a good amount of fellowship.
10. More outreach programmes from different departments, in particular, Food Engineering and Technology, MBBT, Environmental Science and Energy, should be encouraged through appropriate university funding. This will have a very good impact on the society, in particular, to the villages around and create a good impression about the university. This will also be in line with the vision of the university.
11. The facilities provided by the central library may be improved by procuring more text books with multiple copies, as well as journals (both hard copies and digital version, whenever available).
12. The committee recommends that the M.Sc. programme in Environmental Science should be renamed as *M.Sc. in Environmental Science and Technology*, with appropriate modifications in the curriculum by including some essential technology subjects. This would definitely equip the students with the required state-of-the-art knowledge in environmental science and technology, making them more eligible for the job market. In this regard, the university may also think of renaming the M.A./M.Sc. in Mathematics programme as *M.Sc. in Mathematics*.

## **REPORT OF THE COMMITTEE CONSTITUTED FOR CONDUCTING ACADEMIC AUDIT FOR TEZPUR UNIVERSITY FOR 2013**

The Tezpur University vide its notification F.20-70/1/2010(Acad) dated 01 Oct 2013 issued by Registrar constituted the following committee.

### **Academic Audit Committee**

1. Prof. A. C. Bhagabati, Former Vice-Chancellor, Rajiv Gandhi University.
2. Prof. B. P. Sinha, Advanced Computing and Microelectronics Unit, ISI, Kolkata.
3. Prof. Bharati Sharma, Retd. Prof. of IIPA, New Delhi.
4. Prof. P. Mahanta, Retd. Prof., Dept. of Physics, Dibrugarh University.
5. Prof. Uday S. Dixit, Dept. of Mechanical Engineering, IIT Guwahati.

Prof. N. Deka Baruah, Dean, School of Science has assisted the committee as co-ordinator.

Prof. Chandana Goswami, Director, IQAC has been appointed as overall co-ordinator to both Academic and Audit committees.

The detailed schedule of interaction/visit, discussion with various stakeholders and functionaries on 11<sup>th</sup>, 12<sup>th</sup> and 13<sup>th</sup> December 2013 is attached herewith annexure-1.

The committee of Academic Audit covered the following areas of activities/departments of the University in line with the above schedule;

- Electronics & Communication Engineering
- Computer Science & Engineering
- Business Administration
- Centre for Disaster Management
- Civil Engineering
- Food Engineering & Technology
- Mechanical Engineering
- Open and Distance Learning
- English & Foreign Languages
- Sociology
- Physics
- Mathematical Sciences
- Computer Center
- Assamese Study Centre
- Cultural Studies
- Hindi
- Energy

- Chemical Sciences
- SAIC
- Library
- Center for Inclusive Development
- CIIE
- Industry Institute Partnership

The Committee had met the student community, Alumni Association and the teaching staff separately on 11<sup>th</sup> and 12<sup>th</sup> December 2013.

Detailed observation & Suggestion are outline below as well as in the form annexures.

## **SCHOOL OF MANAGEMENT SCIENCES**

### **Department of Business Administration**

1. There should be more industry- department interface.
2. Follow up actions may be taken for the National and International collaborations.
3. It is suggested that the departmental event Sampark may be revived.
4. The department should work in tandem with the placement cell of the University to explore avenues for more number of employers.

## **SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

### **English and Foreign Languages**

1. A stage has reached for separating literature and Linguistics as discrete thrust areas in the form of different departments.
2. The Chinese language programme should be further strengthened keeping in view the Look East Policy.
3. The North East Literature translation to be taken up in mission mode.
4. More faculty positions in core English Programme to meet the current expansion.
5. The newly envisaged programmes of endangered and oral languages of the North Eastern Region should be started at the earliest.

### **Sociology**

1. Faculty strength should be increased to cover Core and specialised papers.
2. There should be a focussed area of research on issues in ethnicity and conflict in the North Eastern Region.
3. Extension activities may be carried out connecting the discipline to community.

## **Hindi**

1. The Department should use language laboratory of the Department of English and Foreign Languages to train students and for research activities
2. There should be a special programme on communicative Hindi
3. A programme may be initiated for the study of different variants of spoken Hindi prevalent in various parts of North Eastern Region.

## **Cultural Studies**

1. The department should be enriched by starting an archive of cultural materials
2. A technical assistant should be appointed for digitization programme.
3. Special emphasis is required to establish a gallery to be called Cultural Interpretation Centre for display and study of tangible cultural heritage of North Eastern Communities.
4. Effort should be made to explore possibilities student placement in Travel and Tourism agencies in the private and government sectors.

## **Mass Communication and Journalism**

1. More effort needed in the area of placement of students in collaboration with placement cell
2. The vacant post of professor should be filled up on a priority basis.
3. Animation and Graphic Design should be started as a programme with additional faculty.
4. The documentaries produced by students as a part of their 3<sup>rd</sup> semester dissertation requirement should be screened preferably in Tezpur town in a programme organised every year as an outreach programme.
5. Community Radio Centre may be established on a priority basis.

## **Centre for Open and Distance Learning**

1. In view of other established major players (universities in the north east) in ODL in the region, it is suggested that certain new area such as Disaster Management and Post Graduate Diploma in Environment Management may be started.
2. ODL programme should focus on the neighbouring districts of the north bank of Brahmaputra instead of covering a wider area.
3. Undergraduate (BA) programme may be started for the benefit of aspirants of neighbouring areas with more number of centres.
4. Infrastructure may be improved and core faculty with a full-time Director/Professor may be appointed.

### **Women Study Centre**

1. In view of the importance of the centre there should be provision for enhanced fund on a regular basis to carry on and expand the activities.
2. There should be permanent core faculty in the position of Director/Professor
3. Gender sensitisation programme to cover the neighbouring areas of the university should be initialised.

### **Centre for Distance Management**

1. North East being a disaster-prone area, there is urgent need for strengthening the centre on in all fronts covering infrastructure, dedicated core faculty and a senior level leader at Professor/Director level.
2. A regular provision of visiting faculty from neighbouring Universities/Organizations in various disaster related areas.
3. Regular disaster awareness programmes may be conducted for the communities in the vicinity of the university.

### **Sexual Harassment Cell**

1. We appreciate the establishment of the cell for sensitization to prevent sexual harassment.
2. The prospectus should reflect the existence of the cell.
3. The cell should make an endeavour to clearly spell out what constitutes sexual harassment.

### **Assamese Study Centre**

1. Considering the importance of the centre, a Director/Professor is required to lead the activities.
2. The translation programme of the centre from Assamese and other regional language publications to English should be undertaken on a regular and systematic basis.
3. A programme of collection of manuscripts in collaboration with other disciplines (Cultural Studies) may be undertaken.



## **Library**

1. Priority areas may be identified for implementation, in a phased manner over the next five years, in consultation with academic departments and centres .
2. More text books may be procured.
3. Working hours may be increased, specially during weekends.

## **Centre for Inclusive Development**

There are three cells within the centre- Training and Placement cell, Equal Opportunity Cell & Career Counselling Cell, SC/ST Cell.

1. There should be enhanced and proactive effort for placement of students in close co-ordination with the academic departments.
2. Coaching programmes for competitive examinations may be initiated.
3. Capacity building programmes for SC/ST and other disadvantaged students should be organised on a regular basis.
4. Research and Community extension activities may be enhanced.

## **Centre for Innovation, Incubation and Entrepreneurship**

1. The entrepreneurship programmes to augment employment of students as well as rural youth may be enhanced.
2. There is need for exploring potential technologies developed by Tezpur University students and Faculty.
3. Research already initiated to develop low cost technologies/products may be further expanded

## **Industry Institute Partnership Cell**

1. As the objective of the cell is to enhance Industry Institute partnership there should be make interaction, tie up and visits to Industry.
2. The cell may co-ordinate with the placement cell of the university to help in placement of the students.

## **SCHOOL OF ENGINEERING**

### **Department of Mechanical Engineering**

1. More faculty members should be recruited.
2. Industrial Engineering area should be represented.
3. Existing young faculty members should complete their Ph.D work as soon as possible.

#### **Department of Electronics & Communication Engineering**

1. More faculty members should be recruited.
2. Library facilities should be improved.
3. Labs should be improved.
4. Younger faculty members should be involved for doing research as well as supervising Ph.D students.

#### **Department of Food Engineering & Technology**

1. The outreach programme to help local industries should be enhanced.
2. Try to develop entrepreneurship for food processing in the NE region.

#### **Department of Civil Engineering**

1. Lab equipment needs to be procured.
2. New faculty members from diverse area should be recruited.

#### **Department of Computer Science & Engineering**

1. Younger faculty members may be involved to do more research as well as supervision of Ph.D students (may be as co-supervisors)
2. Should try to attract more regular full time Ph.D students.
3. Some more faculty members need to be recruited.

### **SCHOOL OF SCIENCE**

#### **Department of Mathematical Sciences**

1. More space needed for faculty room, class room, seminar room and labs. Rooms should be modernized as per other departments.
2. Online video distance learning programme should be started along with the existing correspondence distance education package. There should be one class room/seminar hall with video conferencing facility so that student may attend the classes through internet, sitting at distance corner of the region.

### **Department of Physics**

1. Additional space needed for seminar, class rooms and computer labs.
2. Should start collaborations with national and international institutions/universities.
3. Should explore industry interaction in the fields like nan Sc & Tech, Photonics, etc

### **Department of Environmental Science**

1. Faculty members should consider electromagnetic radiation as an environmental challenge.
2. The name of the programme may be changed to M. Sc. In Environmental science and technology and may be appropriately to include some technology topics to facilitate better employability of the students after obtaining the degree.

### **Department of Molecular Biology & Biotechnology**

1. Industry interaction should be started.
2. Outreach programme should be enhanced.
3. The department should keep up with the present good standard of research.

### **Department of Chemical Sciences**

1. Industrial collaboration and consultancy should be explored.
2. Some research problems of this region should also be attempted.

### **Department of Energy**

1. Outreach programme may be started.
2. New faculty members may be recruited in particularly in the area of microhydel power generation.

## **OBSERVATIONS & SUGGESTIONS REGARDING CENTERES**

### **Computer Center**

1. **Staff:** 10 (Sufficient)
2. **Infrastructure facilities:** Computers are sufficient. However, more space should be provided for 14 servers. Adequate fire safety arrangement in the rooms should be available. Internet speed is adequate considering the current need of the university.
3. **Activities:** Main function is to be provide support to other departments in the form of maintenance of hardware resources, providing software services and training programmes.

They also provide support for video conferencing, networking and multi media projector in various departments and building including auditorium.

4. **Achievements:** One software was developed for Assam Police and another for Lokopriyo Gopinath Bordoloi Regional Institute of Mental Health. A website has been developed for North Eastern Regional Institute of Water and Land Management. Some consultancy work has also been done.

5. **Suggestion for further development:** Considering future need, speed of internet may be increased beyond 1 Gbps with installation of adequate backbone network. Hardware and software should be updated with the state of the art technologies.

### **ONGC-Center for Petroleum Biotechnology (CPB)**

1. **Staff:** 04, OK

2. **Infrastructure facilities:** Enough space is there to allow for future expansion. Enough equipment is available and more can be procured.

3. **Activities:** Some research in petroleum biotechnology has started, but it needs to be enhanced. The collaboration with industry will help.

4. **Achievements:** Two patents have been filled and one national seminar has been organized.

5. **Suggestion for further development:** More academia-industry interaction meets should be organized and industry and center should execute joint projects.

### **Sophisticated Analytical Infrastructure Center**

1. **Staff:** 02, It is not sufficient, more trained staff will be needed for handling the specific sophisticated instruments.

2. **Infrastructure facilities:** Excellent with enough space and large number of state of the art equipment.

3. **Activities:** It caters to the needs of various departments of the university as well as for other research labs of the region.

4. **Achievements:** Up to date maintenance of the specialized equipment. It is expected to play a big role in the future for the whole region.

5. **Suggestion for further development:** Sufficient technical manpower should be hired and efforts should be made to increase percentage utilization of the equipment. Some training programmes for service and maintenance should be organized from time to time.

### **DBT Nodal Center**

1. **Staff:** 06 (including co-ordinators), adequate.
2. **Infrastructure facilities:** Can be improved by providing more space and equipment.
3. **Activities:** Three projects along with a number of collaborations with institutions from NE region.
4. **Achievements:**
  - (a). Infrastructure upgradation in health care sector in different places of NE region.
  - (b) A number of education & training activities have been started.
  - (c) Some research activities resulted in publication.
5. **Suggestion for further development:** Some developmental activities with co-operation from MBBT and other places of NE region may be initiated.

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Prof S. S. Sarkar, Dean, School of Management Studies has assisted the committee as co-ordinator.

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The detailed schedule of interaction/visit, discussion with various stakeholders and functionaries on 11<sup>th</sup>, 12<sup>th</sup> and 13<sup>th</sup> December 2013 is attached herewith annexure-1.

The committee of Administrative Audit covered the following areas of activities/departments of the University in line with the above schedule;

- Registrar and his officers of administration
- Controller of examinations
- Dean R & D
- Dean of Student Welfare
- Engineering Cell
- Finance
- Health Centre
- Tezpur University Entrance Examination
- Intellectual Property Rights Cell
- International Office
- Horticulture Section
- Student Activity Centre
- NSS
- NCC
- Yoga Centre

The Committee had met the student community, Alumni Association and the non-teaching staff separately on 11<sup>th</sup> and 12<sup>th</sup> December 2013 at Council Hall.

With a view to obtain specific input and factual data for objective assessment of HR functions a detailed Questionnaire containing 35 objective questions/enquiries was handed over to Registrar, Tezpur University for response. The response of the Registrar's Office is placed at Annexure-2

## **Overview and statement of records arising out of interactions and documents**

Based on the interaction with Registrar and Officers of Administration the general impression formed by the committee is that there exists a good leadership and team work in the administrative set up.

The manpower positions at Group A, Group B and Group C have been filled up and the vacancies have been advertised wherever applicable and promotional steps are under process in respect of non-teaching staff.

With regard to teaching and non-teaching ratio, the current position is 1:1.09, well below the UGC requirement of 1:1.1.

The University follows UGC guidelines for recruitment and placement for teaching positions. For non-teaching, the University follows Tezpur University Central Recruitment Rules.

It has been informed that Officers and staff are deputed for both in-house and outside need based training programmes. The University has spent Rs 2.15 Lakh approximately for 2013-14 for this purpose.

The University has developed IT system and infrastructure to support the HR functions through LAN set up in respect of leave application, on-line grievance register system, Monthly salary statement, Income Tax, Cheque Issue Alert system, Academic Grade Card, E-Course Material, Ph.D student information system, research Project Fund Management System, On-line Academic Portal (OLAP), Help Desk, Computer Centre.

The communication mode/Medium adopted by the University is Email, SMS, Telephone, Web Media, Circular/Notification.

It is also reported that on every semester, Vice Chancellor holds meetings with Section Heads and other senior officers to review the progress.

The University also has in place good health care facilities (24x7) on the campus, Reimbursement of medical expenses for staff, Mediclaim Policies for students, Pathological Laboratory with sophisticated instruments and ECG, X-ray and Sonography exist in the Health Centre.

The University has adopted outsourcing policy and out sourced cleaning, security, Hostel and Guest House Caterings, which are reviewed every year.

## **The Committee's observations and findings**

The Committee felt that the University administration and HR functions are managed well and there is a general impression of competent officers and staff. The contributions made by them over the years are clearly visible across the Campus. However, the Committee after objective assessment observed the following:

- (i) A lack of coordination between different sections and absence of a mechanism to share information for the purpose of holistic approach to implementation of different programmes.
- (ii) Each administrative unit is not fully aware of the budget allocation for each activity/initiative undertaken during the year, consequently resulting in reactive actions to the situation/requirement.
- (iii) There is no Action Plan drawn up by most of the different administrative units neither do they have Annual schedule/calendar of activities.
- (iv) There is a lacuna in the matters of decentralisation and delegation of administrative and Financial powers.
- (v) The system of training and development is not adequate.
- (vi) Process of e-governance appears to be lacking rigorous application.
- (vii) The Committee notes that a number of important positions have been run on an interim arrangement by giving additional charge.

#### **The Committee's Recommendations:**

1. To improve coordination, there should be frequent consultations and inter-departmental meetings.
2. More objective distribution of administrative and financial powers with clear-cut guidelines for execution.
3. Detailed training programme for the staff on a regular basis should be drawn up at the beginning of each calendar year based on need assessment and a survey of the performance of each department.
4. Each administrative and academic department should proactively obtain the annual budget allocation at the beginning of the financial year and prepare an Action Plan for yearly activities with the approval of the competent authority.
5. Before starting a new activity, the department should obtain input from the concerned and related departments for smooth implementation of the same.
6. The University should strengthen the vibrant e-governance policy in order to make it more effective, transparent and accountable.
7. A proper manpower planning and Human Resource Development strategy need to be adopted by the University.
8. Various important positions should be filled up by regular appointments.
9. Each sectional Head should invariably prepare a PowerPoint presentation annually showing the activities undertaken, completed and future Plan of action before the stakeholders, namely, the students and teachers.



### **Overview and statement of records arising out of interactions and documents provided by the Controller of Examination and the staff:**

The Committee members visited the Office of the Controller of Examinations. It is noted that the University has adopted an Academic Calendar and implemented a system of relative grading with comprehensive continuous internal evaluation system. Relative Grade is awarded on the basis of continuous internal assessment through tests, assignments, seminars and quizzes, etc..

The University has an online database system for Ph.D students. Each Ph.D student of the University can assess his/her updated information from the database.

The University follows the UGC Regulation 2009 for the Ph.D programmes. As per directive of the UGC, the soft copies of the theses are sent to the INFLIBNET Centre regularly. The University has signed a MoU with the INFLIBNET centre for keeping the theses in the Shodhganga.

The University has a system of online course registration and grade submission.

The University displays the results and grade cards online.

The University utilizes anti-plagiarism software, Turnitin, for checking the Ph.D theses.

The Regulations relating to academic matters on conduct of examinations have been amended and the new system consists of Type A tests of written (descriptive/objective) and Quizzes (objective type/multiple choice- written or oral) and Type B tests of assignments, case study discussion, Field work (written report) Seminars (presentation of an assignment, homework, field work etc.), Role playing (particularly for management sciences), Library work on a particular course, and any other test the course instructor finds suitable for a particular course to be announced at the beginning of the semester.

The number of tests to be taken by a student is four Type A tests and 2 tests of Type B tests on a particular course in a semester in addition to the end-semester examination.

### **Observations**

- (i) The Committee has observed that the students are not comfortable with the new amended system of Continuous evaluation as expressed by the students in their interactions with the Committee members. The general feeling is that there are too many number of tests and the students do not have time to go deep into learning their subjects.
- (ii) The students have a general feeling that the subjective element is a dominating factor in the Type B tests and no steps have been taken to increase the objective element.
- (iii) The students also pointed out that a uniform system of continuous evaluation does not work equally effectively in the different schools.

- (iv) The students also appear not to be happy about the CBCT component and feel that in order to take up CBCT, they have to sacrifice some essential component of learning in their main area of study.

### **Recommendations**

After very fruitful interactions with the students and the teachers, the Committee makes the following recommendations:

1. The University may revisit both Continuous Evaluation and CBCT with maximum amount of consultation with the stakeholders and find out a student-friendly evaluation methodology.
2. In the grade sheet, the scores in the Continuous Evaluation (including the end-semester examination) and CBCT may be shown separately and then the overall CGPA should be given in order that the students and the potential employers know about the performance of the student in his/her basic discipline.
3. The student feedback on various parameters should be made online and an impact study of the feedback should be given to all teachers and also a copy of the report should also be made available to the VC's office.

### **Overview arising out of interactions with the Officers and staff of the Engineering Cell:**

The Engineering Cell brought it to the notice of the Committee that there is shortage of manpower and other facilities.

The Committee observes that there is no action plan for the Engineering Cell and they work on the basis of requirement and on case-to-case basis. Also the staff is unaware of financial allocation and they are working purely on technical estimates and seeking financial concurrence. This has led to a situation where the overall perspective of campus development through well laid-out strategies of plan, estimate and construction of building including major/minor repairs and renovations, is missing.

### **Recommendations:**

- (i) The Committee recommends that some of the requirements of manpower may be addressed through outsourcing and empanelment of technical/semi-technical persons (electricians, plumbers, etc.) which should be put in the website for information of all concerned.
- (ii) There should be coordination between the Engineering cell, Hostel wardens and the Estate Officer for better repair and renovation measures.
- (iii) The Engineering cell should chalk out an annual plan for repair, renovation and new construction in line with the plan and non-plan allocations.

- (iv) In those hostels, where there is no hot-water availability, the Engineering Cell may draw out alternative options of using solar power under the subsidized scheme of Government of India.

### **Overview arising out of interactions with Finance Department**

The Committee members were shown documents relating to Annual Accounts, Audit Reports, Balance Sheets and Plan & non-Plan budget estimates. There has been no major audit objections with regard to financial management of the University Fund/Grants received from UGC and other Agencies during the year under review. It has been pointed out that there is a huge cut in the Plan allocation for the XII Plan requiring re-prioritization of allocation to various departments. It has been observed that there is no mechanism of consultation between the Finance Department and the Academic Departments to review the original Plan document vis-à-vis the actual plan allocation. It has been observed that the reprioritization was done mainly on technical grounds which may run the risk of losing the academic thrust originally planned.

### **Recommendations:**

1. The dissemination of information relating to Plan and non-Plan budget allocation needs to be strengthened and periodical discussion on trends of expenditure incurred are to be held between Finance and Teaching and non-Teaching Departments.
2. With respect to construction activities following the cut in Plan allocation, the Engineering Cell and the Finance should urgently interact on building projects to be taken up under limited fund availability with the knowledge of the Vice-Chancellor.
3. The Finance Department should identify areas of financial operations common to academic HODs, DRs, ARs for the purpose of training these functionaries on proper and timely fund utilization.
4. All the major Bills may be pre-audited before passing for payment.

### **Overview arising out of interactions with Dean (R & D):**

The Dean presented an overview of the activities. The Committee observes that the 'h' factor of the University is not known and the monitoring of the projects is mostly done on the basis of utilization of fund and not on the basis of actual achievement.

### **Recommendations:**

1. Monitoring of the projects should be done at least once a year departmentally in line with the procedure adopted by DST and other agencies.
2. There should be more emphasis on high quality publications by the researchers and instead of reporting on the total number of publications in a year, the distribution of the publications on the basis of 'Impact Factor' should be shown. The University may

decide on some incentives to departments/individual researchers with the largest number of publications in high impact factor journals.

3. The University may frame rules for giving 'Seed money' for newly recruited teachers and research assistance to other teachers.

### **Overview arising out of interactions with Dean (Students Welfare):**

The DSW presented a list of 20 different activities in his domain along with the activities of the Student Council. It is informed that the Student Union elections will be held soon under the Lyngdoh Commission Recommendations.

The Committee observes on the basis of interactions with the students that there is a communication gap between the office of the DSW and the students particularly with respect hostel management, placement matters, etc.

### **Recommendations:**

1. There should be frequent interactions among the DSW, the Hostel wardens and the student prefects/monitors with regard with regard to hostels and recreational facilities.
2. The DSW should take up the matter of aggressive publicity initiatives and liaison with industries with the Placement Cell. Efforts may be made to study the placement process in the NITs of the NE Region and the IIM Shillong.
3. The students should be informed about the fee structure with the detailed break-up at the time of admission.
4. The University may review the fee structure for Ph. D. students as the matter was prominently raised during the interactions with the students.
5. The DSW should coordinate with the NSS, NCC for wider participation in the activities.
6. The DSW should develop an effective procedure to monitor the compliance and adherence by the boarders to Hostel Rules.
7. Since it has come out during the interactions with the students, the DSW should take up the matter of organizing the University Week in a more befitting manner, comparable to the festival organized by the Engineering students.

## **Overview and statement of records arising out of interactions with NCC/NSS/Horticulture/Sports and Cultural Units**

The University has introduced and implemented well balanced extra-curricular activities for student community through NCC established in the year 2011 and has appointed CTO for co-ordination. During the year under review, it is informed that training to NCC cadets, National Integration Camps, Annual Training Camps, Tree Plantation, Blood Donation, Literacy Programmes, etc., have been conducted by the NCC wing.

Most of the graduate students excepting the intake of 60 by the NCC join NSS and they take up various activities as per NSS Guidelines. However, despite being mandatory, a large number of students keep away from NSS activities.

The University has a very well spread out campus with green and eco-friendly environment and plantation being looked after and nurtured by the Horticulture Section.

The sports facilities in the University have been found to be very good and adequate in infrastructure and Gym facilities. There also exists facilities for cultural activities for the students.

The details are available in Annexure 3.

### **Recommendations:**

With respect to the above, the Committee recommends as follows:

- (i) Horticulture:
  - Based on budget allocation, the Horticulture Section should go for “theme plantation” on periodical basis like ‘Rose Plantation’ across the campus in one season, ‘Marigold Plantation’ for another season, etc.
  - To cut down on expenditure on grass-cutting, the Horticulture Section should resort to more landscaping.
  - Efforts should be made to make the horticultural activities self-sustaining as there exists a lot of scope for sale of plants and products including vermicompost.
- (ii) NSS:
  - NSS should take up more outreach programmes involving the communities surrounding the campus.
  - NSS volunteers should be encouraged to take up community services like use of non-conventional sources of energy, sanitation measures, health consciousness, etc.
  - NSS may start a campaign with active assistance of the University administration for providing the village shopkeepers free newspapers accumulating in the University and paper bags made from them with the objective of discarding the use of plastic bags.

- The donors of blood should be given some incentive in the form of exemption or subsidized treatment in the hospitals receiving blood.
- (iii) NCC:
  - NCC should find out reasons for the disinterest in joining NCC among the girl students
  - Both NCC and NSS activities should be planned taking into consideration the academic calendar and the continuous evaluation system for the students.
  - An awareness programme for NCC and NSS may be organized during the University week.
  - Some of the activities of the NCC and NSS may be planned in collaboration with the Horticulture Section and Sports as the case may be.
- (iv) Sports and Cultural Activities:
  - NIS coaches may be engaged for coaching in sports and games, particularly for football, cricket, badminton, etc.
  - Records of users of Gym facilities should be computerized with reference to different age groups, boys and girls, faculty and staff, families of faculty and staff, etc.
  - The existing space allotted for cultural infrastructure in the Sports Complex needs to be modernized and air-conditioned with proper storage facilities, enclosure/sitting arrangement for the incharge, etc.
  - The incharge, cultural activities also should be empowered with certain amount of financial allocation for meeting expenses of day-to-day activities.

### **Overview and statement of records arising out of interactions with IPR and IO:**

The Tezpur University Intellectual Property Rights Cell has shown potential for further growth and development which is also supported by its Annual Activity Report April 2012-March 2013 and supporting documents.

The International Office also gave a statement of recent activities in 2013 and about their future role.

The details given by the units are in Annexure 4.

### **Observations:**

Both these units have been functioning well in the formative years and the units can grow to be important wings of the University if properly nurtured by the University.

### **Recommendations:**

- (i) The International Office is mostly doing MOU-based activities and therefore, the Committee feels that the IO should have a Concept Paper stating the vision, mission and the modalities in consultation with the academic community.

- (ii) The IO should take steps to facilitate movement of students in both directions, and in particular, to publicise the facilities at Tezpur University both in India and abroad to attract more students from outside and the neighbouring countries to the University.
- (iii) The IPR unit should strengthen and expand their activities and the facilities may be extended to other institutions and entrepreneurs of the N E region. The IPR also should develop appropriate training modules for capacity building in intellectual property rights.

### **Overview and statement of records arising out of interactions with TUEE:**

TUEE has taken some steps to publicise the academic programmes of Tezpur University both inside and outside the region with printed colour posters and have designed other publicity materials for the same.

The Committee was impressed with the work being done by the TUEE in conducting the entrance examination without a blemish from the very beginning. However, the Committee feels that TUEE should also take up capacity building exercises through training, etc.

### **Recommendations:**

- (i) TUEE should take up a thorough analysis of the results of the Entrance Examination on yearly basis showing the distribution of the students in order to draw inferences with regard to merit and other traits.
- (ii) TUEE should follow a uniform negative marking system for all departments.

### **Overview arising out of interactions with the Doctors and staff at the Health Centre:**

The Chief Medical Officer along with his staff showed the Committee members the infrastructural facilities available at the Health Centre for consultations, tests and other medical aid including the day care in-patient facilities. The Centre is well-equipped with pathological test facilities, ECG, X-ray, Counselling room for students, etc. The building has been constructed by taking into account long-term future needs in terms of indoor treatment, facilities and staffing. The CMO suggested the need for more doctors in the Centre. The patient records have been properly kept.

### **Recommendations:**

- (i) The OPD hours for students may be suitably adjusted taking into account the Class routine.
- (ii) The patient records should be computerized.
- (iii) Health Centre may take up outreach programmes to help the neighbouring areas with health check-up camps and other similar activities.

**Overview arising out of interactions with the staff at the Yoga Centre:**

The Committee interacted with the incharge and the trainer and noted the initiatives taken by the Centre to sensitize the students and the University community to the ancient Indian Yoga traditions for overall personality development.

**Recommendation:**

- (i) The Committee recommends farther strengthening of the Yoga facilities in the campus.
- (ii) The Centre should keep a computerized record of users under different categories (age distribution, student, faculty, staff, family members, frequency of visit, etc.)



**Department: Mechanical Engineering**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK, no faculty in industrial engineering areas, more new faculty members to be recruited
		Students Profile	OK, admission is done through appropriate selection process.
		Faculty: Students ratio	B:Tech- 1:20 M.Tech- 1:20
2	Teaching-Learning Processes	Programmes	B.Tech, M.Tech and Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	OK, general comments on CBCT will apply
		Curriculum Update	Done on a regular basis
		Delivery of Contents	OK
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
		Implementation of Continuous Evaluation Process	General Comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	Scope to improve Labs on turbo-machinery, metrology etc. Some bench models for UG students may also be procured.
		Seminar Hall	OK
		Dept. Library	-
		For Faculty	OK
		Board Room	-
		MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal-44, Conf-48, Monograph-1, boOK chapter-5
		Thrust Areas	Biomass gasification, Tea processing , alternate fuels
		Patents	Nil
		Conference/ Workshops etc. organized	Nil
		Collaborations	Nil, may be started
		Industry Interaction	Should be started
		Consultancy	May be started
5	Extension Activity		Not started
6	Achievements	Faculty	-
		Students	Awarded first prize in national Auto Quiz
9	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not done

		Stakeholders relationship	Not explored
		Any Other	-
10	Extra- curricular Activities		OK
11	Student Placement		Needs to be improved, general comments apply.
12	Healthy Practices		1. B.Tech projects are undertaken on need-based real life topics 2. Students are encouraged for higher studies.
13	Specific suggestions for the Department for further improvement		1. More faculty members should be recruited. 2. Industrial Engineering area should be represented. 3. Existing young faculty members should complete their Ph.D work as soon as possible.

**Department: Mathematical Sciences**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK, diversity OK
		Students Profile	OK
		Faculty: Students ratio	M.Sc- 1:7. Int M.Sc- 1:2, Int B.Sc/B.Ed-1:1
2	Teaching-Learning Processes	Programmes	M.Sc, Int M.Sc, Int B.Sc-B.Ed, Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	OK
		Curriculum Update	Done regularly
		Delivery of Contents	Done
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
		Implementation of Continuous Evaluation Process	General comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	Computer labs need to be set-up
		Seminar Hall	Needs to be modernized with video conferencing facilities.
		Dept. Library	-
		For Faculty	Not adequate
		Board Room MDP Room	-
		Drinking Water, Toilet etc.	May be looked at for improvement.
4	Research & Consultancy Activities	Publications: Number & Quality	Journal-115, Conf-5, monograph-2, Edited boOK-1
		Thrust Areas	Number theory, Operator theory, quantity- OK
		Patents	-
		Conference/ Workshops etc. organized	4 in four years
		Collaborations	Nil
		Industry Interaction	Nil
		Consultancy	Nil
5	Extension Activity		Exists in the form of distance education
6	Achievements	Faculty	Three awards
		Students	-
7	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not done
		Stakeholders relationship	Not started

		Any Other	-
8	Extra- curricular Activities		OK
9	Student Placement		Placement should be improved. General comments apply.
10	Healthy Practices		Invited talks delivered by the eminent scientist from India and abroad.
11	Specific suggestions for the Department for further improvement		<p>1. More space needed for faculty room, class room, seminar room and labs. Rooms should be modernized as per other departments.</p> <p>2. Online video distance learning programme should be started along with the existing correspondence distance education package. There should be one class room/seminar hall with video conferencing facility so that student may attend the classes through internet, sitting at distance corner of the region.</p>

**Department: Electronics & Communication Engineering**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	Quality is reasonably good. However, the younger faculty member should be encouraged to do more research as well as research supervision.
		Students Profile	OK, selection process for admitting students is also acceptable.
		Faculty: Students ratio	B. Tech- 1:12 M. Tech- 1:6 M. Tech.(Bioelectronics.): - 1:3 Diploma(EDT): 1:5 Considering an annual intake of 60 B.Tech, 43 M.Tech and 20 Diploma students, and the requirement of supervising their projects, the faculty: students ratio needs to be improved by a large factor through fresh recruitment.
2	Teaching-Learning Processes	Programmes	B.Tech, M.Tech (EDT) & (Bioelectronics), Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	Adequate flexibility is there. However, the general comments regarding CBCT is to be noted.
		Curriculum Update	Done on a regular basis every three-four years.
		Delivery of Contents	OK, students are highly satisfied.
		Motivating Creativity & Innovation	Found to be encouraging.
		Use of Teaching Aids	Adequate
		Grading	OK
		Implementation of Continuous Evaluation Process	The general comment may be noted
3	Physical Facilities	Lecture Halls	Adequate
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	By and large OK. However, the labs on circuit theory, electrical mechanics etc may also be set up
		Seminar Hall	OK
		Dept. Library	Very few boOKs; more boOKs may be procured
		For Faculty	OK
		Board Room	-

		MDP Room	
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal-48, Conf-29, Edited book-1, BoOKs-1, Quality-OK Research profile of younger faculty member in terms of number and quality of publication needs to be improved by creating opportunities.
		Thrust Areas	Bio-electronics, Bio-sensors, microwave Engg, communication engg, microelectronics, signal and image processing.
		Patents	1
		Conference/ Workshops etc. organized	4, which seems to be OK during 4 years
		Collaborations	OK, may be strengthened.
		Industry Interaction	Needs to be strengthened
		Consultancy	Should be started.
5	Extension Activity		Appropriate steps may be taken towards this.
6	Achievements	Faculty	-
		Students	One student got two awards taken.
7	Quality Assurance	Student Feedback	
		Peer Evaluation	Not really done
		Stakeholders relationship	Not explored as yet
		Any Other	-
8	Extra- curricular Activities		Adequate.
9	Student Placement		Needs to be improved by taking/proactive measures. General comments apply.
10	Healthy Practices		Real life problem are offered as projects/demonstration UG/PG levels, students feedback is taken
11	Specific suggestions for the Department for further improvement		1. More faculty members should be recruited. 2. Library facilities should be improved. 3. Labs should be improved. 4. Younger faculty members should be involved for doing research as well as supervising Ph.D students.

**Department: Food Engineering & Technology**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK, diversity- adequate
		Students Profile	OK, admitted through appropriate procedure.
		Faculty: Students ratio	B.Tech= 1:16, M.Tech=1:12, Int M.Tech=1:8
2	Teaching-Learning Processes	Programmes	B.Tech, M.Tech, Int M.Tech, Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	OK, general comments on CBCT apply
		Curriculum Update	Done on a regular basis
		Delivery of Contents	OK
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
		Implementation of Continuous Evaluation Process	General comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	OK
		Seminar Hall	OK
		Dept. Library	-
		For Faculty	OK
		Board Room	-
		MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal:61, Seminar:8, BoOKs Chapter:2, Quality-OK
		Thrust Areas	Value added products from locally available food materials, fermented beverages and products, packaging technologies, dairy, product technology, process technology development.
		Patents	1 (applied)
		Conference/ Workshops etc. organized	3 in 4 years, OK
		Collaborations	2 national inter institutional collaborations.
		Industry Interaction	Only with local small industries, needs to be explored with bigger industries.

		Consultancy	Only with local small industries, needs to be explored with bigger industries
5	Extension Activity		Outreach programmes started, but needs to be enhanced as suggested.
6	Achievements	Faculty	OK
		Students	1 best poster award in an international conference
7	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not done
		Stakeholders relationship	Not yet explored.
		Any Other	
8	Extra- curricular Activities		OK
9	Student Placement		Needs to be improved, general comments apply
10	Healthy Practices		Trying to help local industries
11	Specific suggestions for the Department for further improvement		<p>1. The outreach programme to help local industries should be enhanced.</p> <p>2. Try to develop entrepreneurship for food processing in the NE region.</p>



**Department: Civil Engineering**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK, diversity should be more Needs to recruit more faculty in various areas.
		Students Profile	OK
		Faculty: Students ratio	B.Tech= 1:18
2	Teaching-Learning Processes	Programmes	B.Tech & Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	OK, general comments on CBCT apply
		Curriculum Update	Newly started programme needs to be done on a regular basis.
		Delivery of Contents	OK
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
		Implementation of Continuous Evaluation Process	General comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	OK. However, practical set-up for different experiments may be increased.
		Seminar Hall	OK
		Dept. Library	-
		For Faculty	OK
		Board Room	-
		MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal:10, Conf:6 Monography:1, Quality-OK
		Thrust Areas	Not identified so far.
		Patents	Nil
		Conference/ Workshops etc. organized	None (However, one day training of site supervisors was organised)
		Collaborations	-
		Industry Interaction	-
		Consultancy	Quite good
5	Extension Activity		Should be started.
6	Achievements	Faculty	-
		Students	-
7	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not done
		Stakeholders relationship	Not yet explored.
		Any Other	

8	Extra- curricular Activities		OK
9	Student Placement		Needs to be improved, general comments apply
10	Healthy Practices		Problems in real life situations related to river bank erosion, ground water quality, utilization of solid waste, stability of hill cut slope were studied by students through B.Tech projects
11	Specific suggestions for the Department for further improvement		1. Lab equipment needs to be procured. 2. New faculty members from diverse area should be recruited.

**Department: Computer Science & Engineering**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	Good, diversity of specialization-OK
		Students Profile	OK, selection process for admission is acceptable
		Faculty: Students ratio	B.Tech= 1:25. M.Tech-1:15, MCA= 1:23
2	Teaching-Learning Processes	Programmes	B.Tech, M.Tech, MCA & Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	Adequate flexibility, General comments about CBCT are applicable.
		Curriculum Update	Done on regular basis every 3 to 4 years
		Delivery of Contents	Satisfactory for the students
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	Adequate
		Grading	OK
		Implementation of Continuous Evaluation Process	General comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	OK.
		Seminar Hall	OK
		Dept. Library	OK
		For Faculty	OK
		Board Room	-
		MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal:64, Conf:90, Book chapter-15, Edited books-3, quality-OK
		Thrust Areas	AI, network security, speech recognition, robotics, data mining, mechanical intelligence, NLP, Bio-informatics.
		Patents	3
		Conference/ Workshops etc. organized	7 in 4 years (very good)
		Collaborations	good
		Industry Interaction	Should be started
		Consultancy	OK, there is scope for enhancement.
5	Extension Activity		May be started.
6	Achievements	Faculty	Good & encouraging

		Students	Nil
7	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not really done
		Stakeholders relationship	Not explored.
		Any Other	
8	Extra- curricular Activities		OK
9	Student Placement		Should be improved, general comments will apply.
10	Healthy Practices		1. Research profile is very good 2. Inter-disciplinary research is being carried out. 3. Eminent scientist are invited from India & abroad to deliver lectures periodically.
11	Specific suggestions for the Department for further improvement		1. Younger faculty members may be involved to do more research as well as supervision of Ph.D students (may be as co-supervisors) 2. Should try to attract more regular full time Ph.D students. 3. Some more faculty members need to be recruited.

**Department: Physics**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK, diversity-reasonable
		Students Profile	OK
		Faculty: Students ratio	M.Sc- 1:6. M.Sc in Nano Sc- 1:4 Integrated M.Sc- 1:4, Integrated B.Sc/B.Ed-1:4
2	Teaching-Learning Processes	Programmes	M.Sc-. M.Sc in Nano Sc-,Int M.Sc, Int B.Sc/B.Ed,Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	OK
		Curriculum Update	OK done on regular basis
		Delivery of Contents	OK
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
		Implementation of Continuous Evaluation Process	General comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	OK.
		Seminar Hall	OK
		Dept. Library	-
		For Faculty	OK
		Board Room	-
		MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal:239, Conf:20, BoOK chapter-2,Editted boOKs-2, boOK-1, quality- good
		Thrust Areas	Condensed matter and Nano Science and Technology
		Patents	-
		Conference/ Workshops etc. organized	11 (very good)
		Collaborations	Nil, may be started with national and international institutions.
		Industry Interaction	Nil, may be started in the area of Nano Sc & Tech, photonics etc.
		Consultancy	Nil
5	Extension Activity		Activity in the form of Astrophysics club
6	Achievements	Faculty	=

		Students	-
7	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not done
		Stakeholders relationship	Not started.
		Any Other	
8	Extra- curricular Activities		OK
9	Student Placement		Needs to be improved, general comment apply.
10	Healthy Practices		1. Invited lecturer by eminent speakers from India & abroad 2. Organizing a large number of conference in the relevant field of research
11	Specific suggestions for the Department for further improvement		1. Additional space needed for seminar, class rooms and computer labs. 2. Should start collaborations with national and international institutions/universities. 3. Should explore industry interaction in the fields like nan Sc & Tech, Photonics, etc

**Department: Environmental Science**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK, diversity may be increased to address electromagnetic radiation
		Students Profile	OK
		Faculty: Students ratio	1:3.3
2	Teaching-Learning Processes	Programmes	M.Sc.
		Curriculum	OK
		Flexibility in Curriculum Structure	OK, General comments on CBCT apply
		Curriculum Update	OK
		Delivery of Contents	OK
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
		Implementation of Continuous Evaluation Process	General comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	Good
		Seminar Hall	OK
		Dept. Library	-
		For Faculty	OK
		Board Room	-
		MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal:43, <a href="#">Conf:17</a> , Monograph-1 BoOK chapter-3, Editted boOKs-1, quality-good
		Thrust Areas	Climate change, water quality and hydrology, water management, EQA, geo-morphology
		Patents	Nil
		Conference/ Workshops etc. organized	3 in four years
		Collaborations	OK, May be further increase
		Industry Interaction	Nil
		Consultancy	Nil
5	Extension Activity		Training/Outreach Programme has been started, may be further increased
6	Achievements	Faculty	2 awards
		Students	-

7	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not done
		Stakeholders relationship	Not started.
		Any Other	-
8	Extra- curricular Activities		OK
9	Student Placement		Needs to be improved, general comments apply.
10	Healthy Practices		1.Limited talks are arranged periodically 2.Training of students on modern environmental approaches has been practised
11	Specific suggestions for the Department for further improvement		1. Faculty members should consider electromagnetic radiation as an environmental challenge. 2. The name of the programme may be changed to M. Sc. In Environmental science and technology and may be appropriately to include some technology topics to facilitate better employability of the students after obtaining the degree.



**Department: Molecular Biology and Biotechnology**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK
		Students Profile	OK
		Faculty: Students ratio	M.Sc.- 1:3.5, Int M. Sc. 1:3.8
2	Teaching-Learning Processes	Programmes	M.Sc., Int. M. Sc., Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	OK, General comments on CBCT apply
		Curriculum Update	Done on aregular basis
		Delivery of Contents	OK
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
		Implementation of Continuous Evaluation Process	General comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	OK
		Seminar Hall	OK
		Dept. Library	-
		For Faculty	OK
		Board Room MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal:100, Conf:170, BoOK chapter-3
		Thrust Areas	Microbial Biotechnology, Drug from material resources, Disease Pathogenesis
		Patents	2
		Conference/ Workshops etc. organized	8 in four years( very impressive)
		Collaborations	Very good both at national as well as international level
		Industry Interaction	-
		Consultancy	Nil
5	Extension Activity		Some outreach programme has been started which may be extended
6	Achievements	Faculty	Good
		Students	-
7	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not done
		Stakeholders relationship	Not explored.

		Any Other	-
8	Extra- curricular Activities		OK
9	Student Placement		Needs to be improved by and large, general comments apply.
10	Healthy Practices		1. Eminent scientists are invited periodically to deliver talks. 2. Every faculty member has own research lab. And research projects with bore up central facilities. 3. No. of full time Ph.D scholar is more than part time scholar
11	Specific suggestions for the Department for further improvement		1. Industry interaction should be started. 2. Outreach programme should be enhanced. 3. The department should keep up with the present good standard of research.

**Department: Energy**

<b>Sl No</b>	<b>Parameter</b>	<b>Sub Parameter</b>	<b>Observations &amp; Suggestions</b>
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK, diversity-OK
		Students Profile	OK
		Faculty: Students ratio	M.Tech-1:8
2	Teaching-Learning Processes	Programmes	M.Tech and Ph.D
		Curriculum	OK
		Flexibility in Curriculum Structure	OK
		Curriculum Update	OK
		Delivery of Contents	OK
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
		Implementation of Continuous Evaluation Process	General comments apply
3	Physical Facilities	Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	OK
		Seminar Hall	OK
		Dept. Library	-
		For Faculty	OK
		Board Room MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal:70, Conf:78, BoOK chapter-8, edited boOK-1, boOK-1, quality-OK
		Thrust Areas	Solar energy, biodiesel, biomass and bio-waste, biochar, renewable energy
		Patents	2
		Conference/ Workshops etc. organized	3
		Collaborations	6 (adequate)
		Industry Interaction	May be started
		Consultancy	Nil
5	Extension Activity		Outreach programme may be initiated to install solar photovoltaic arrays and biogas facilities in nearby villages, with findings from some energy awareness programme may also be initiated
6	Achievements	Faculty	2 awards
		Students	-

7	Quality Assurance	Student Feedback	Taken regularly
		Peer Evaluation	Not done
		Stakeholders relationship	Not started.
		Any Other	-
8	Extra- curricular Activities		OK
9	Student Placement		Needs to be improved, general comments apply.
10	Healthy Practices		Collaborations with national and international institutions
11	Specific suggestions for the Department for further improvement		<p>1. Outreach programme as mentioned above may be started.</p> <p>2. New faculty members may be recruited in particularly in the area of microhydel power generation.</p>

**Department: Chemical Sciences**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	OK, diversity-good
		Students Profile	OK
		Faculty: Students ratio	M.Sc- 1:4. Int M.Sc- 1:4, Int B.Sc/B.Ed-1:1.5
2	Teaching-Learning Processes	Programmes	M.Sc, Int M.Sc, Int B.Sc/B.Ed, Ph.D
		Curriculum	General Comments on CBCT apply
		Flexibility in Curriculum Structure	OK
		Curriculum Update	OK
		Delivery of Contents	OK
		Motivating Creativity & Innovation	OK
		Use of Teaching Aids	OK
		Grading	OK
3	Physical Facilities	Implementation of Continuous Evaluation Process	General comments apply
		Lecture Halls	OK
		Teaching Aids	OK
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	good
		Seminar Hall	OK
		Dept. Library	-
		For Faculty	OK
		Board Room MDP Room	-
		Drinking Water, Toilet etc.	OK
4	Research & Consultancy Activities	Publications: Number & Quality	Journal:289, Conf:56, BoOK chapter-6, boOK-1, quality-OK
		Thrust Areas	Polymer, material chemistry
		Patents	Nil
		Conference/ Workshops etc. organized	3
		Collaborations	10 (good)
		Industry Interaction	Nil
		Consultancy	Nil
5	Extension Activity		Some Outreach programme may taken up
6	Achievements	Faculty	8 awards (good)
		Students	OK
7	Quality Assurance	Student Feedback	Taken
		Peer Evaluation	Not done
		Stakeholders relationship	Not explored.

		Any Other	-
8	Extra- curricular Activities		OK
9	Student Placement		Needs to be improved.
10	Healthy Practices		1. Organization of workshops and lectures by eminent scientists. 2. Good research output.
11	Specific suggestions for the Department for further improvement		1. Industrial collaboration and consultancy should be explored. 2. Some research problems of this region should also be attempted.

**Department: Cultural Studies**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	No. of faculty -09, Prof-2, Assoc. Prof. -1, Asst. Prof. 06 Literature, Heritage, Media, Folklore, Ethnicity
2	Teaching-Learning Processes	Programmes	MA/PhD (Cultural Studies)
		Curriculum	
		Flexibility in Curriculum Structure	CBCT course, modular M.A, optional courses
		Curriculum Updating	
		Delivery of Contents	Class room lectures, study materials, case study
		Motivating Creativity & Innovation	Wall Magazine/Multimedia Documentation
		Use of Teaching/training Aids	PPT, Fieldwork, Multimedia Specific Library visits
		Implementation of Continuous Evaluation Process	
3	Physical Facilities		Computer centre /Library/Museum/Archive/ seminar hall
4	Research & Consultancy Activities		5 undergoing research projects
5	Extension Activity		Photography exhibition/annual lecture
6	Achievements		UGC award, Indo Shastri Canadian award
7	Quality Assurance	Participants Feedback	Yes
		Peer Evaluation	Yes, (Academic audits)
		Stakeholders relationship	Alumni contacts
		Any Other	
8	Extra- curricular Activities		
9	Student Placement		
10	Healthy Practices		Student mentorship/student forum
11	Specific suggestions for the Department for further improvement		<ol style="list-style-type: none"> <li>1. An archive of cultural materials</li> <li>2. A technical assistant for digitization programme.</li> <li>3. Effort for student placement in Travel and Tourism agencies in the private and government sectors.</li> </ol>

**Department: English and Foreign Languages**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	Literature : 10 Lit Chinese : 1+1 (Spl : 4 areas) Linguistic : 5 (Area of Special Interest : 12)
		Students Profile	Diverse; More Female student/inclusive
		Faculty: Students ration	
2	Teaching-Learning Processes	Programmes	MA-2, Integrated – 2, Certificate-2
		Curriculum	-
		Flexibility in Curriculum Structure	Flexible
		Curriculum Updating	Every 3 years
		Delivery of Contents	Lecture + presentation
		Motivating Creativity & Innovation	Yes
		Use of Teaching Aids	Yes
		Grading	
		Implementation of Continuous Evaluation Process	Yes
3	Physical Facilities	Lecture Halls	6
		Teaching Aids	Yes
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	Yes
		Seminar Hall	No
		Dept. Library	No
		For Faculty	Yes
		Board Room MDP Room	
		Drinking Water, Toilet etc.	Yes
4	Research & Consultancy Activities	Publications: Number & Quality	36 (Books + Journals)
		Trust Areas	3 (SAP) Endangered Languages
		Patents	
		Conference/ Workshops etc. organized	5+4 one forthcoming)
		Collaborations	Done
		Industry Interaction	
		Consultancy	Done ( Chinese)
5	Extension Activity		
6	Achievements	Faculty	
		Students	NET/SLET/JRF
7	Quality Assurance	Student Feedback	Yes
		Peer Evaluation	Yes
		Stakeholders relationship	Yes
		Any Other	
8	Extra- curricular Activities		



9	Student Placement		Assistance Provided
10	Healthy Practices		Open feedback and change
11	Specific suggestions for the Department for further improvement		<ol style="list-style-type: none"> <li>1. Linguistic Separate Dept</li> <li>2. Chinese Prog Enhancement</li> <li>3. North East Lit. Translation in Mission Mode</li> </ol>

**Department: Hindi**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	No. of faculty -04, Prof-I, Assoc. Prof. -I, Asst. Prof. 02 Medieval Poetry, Comparative study, Applied Linguistics, Modern literature, Linguistics
2	Teaching-Learning Processes	Programmes	MA/PhD/PGDT. Hindi
		Curriculum	MA/ Ph.D. ,PGDT.,MIL,CBCT
		Flexibility in Curriculum Structure	New Department
		Curriculum Updating	
		Delivery of Contents	Class room lectures, Seminar, Assignment etc., supply of study materials
		Motivating Creativity & Innovation	-
		Use of Teaching/training Aids	Uses of Boards, study materials
		Implementation of Continuous Evaluation Process	
3	Physical Facilities		Class Room
4	Research & Consultancy Activities		Full time research scholars-2, Part time research scholar-4 Supervisors-2 Total Publications- 52
5	Extension Activity		-
6	Achievements		CSRI-NET (JRF-1)
7	Quality Assurance	Participants Feedback	
		Peer Evaluation	
		Stakeholders relationship	
		Any Other	Students are guided on a day to day basis
8	Extra- curricular Activities		
9	Student Placement		
10	Healthy Practices		
11	Specific suggestions for the Department for further improvement		<ol style="list-style-type: none"> <li>1. Use language laboratory of the Department of EFL</li> <li>2. Special programme on communicative Hindi</li> <li>3. Programme on spoken Hindi of various parts of North Eastern Region.</li> </ol>

**Department: Mass Communication and Journalism**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	11, one on lien sufficient Diverse specialisation faculty
		Students Profile	
		Faculty: Students ration	
2	Teaching-Learning Processes	Programmes	03
		Curriculum	Latest / up to date
		Flexibility in Curriculum Structure	Recently Revised(2013) Both MA & PhD Course work
		Curriculum Updating	Do
		Delivery of Contents	Optimum satisfaction of student
		Motivating Creativity & Innovation	Inherent in our curriculum
		Use of Teaching Aids	Multimedia use satisfactory
		Grading	Relative grading
		Implementation of Continuous Evaluation Process	Well defined continuous evaluation process
3	Physical Facilities	Lecture Halls	02 major 03 minor
		Teaching Aids	MMP/Apple computers, 30 pieces
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	Video and audio editing & production studio & suites- specialised labs for print, New media
		Seminar Hall	Yes (02)
		Dept. Library	Well-equipped seminar hall
		For Faculty	Individual rooms
		Drinking Water, Toilet etc.	Good
4	Research & Consultancy Activities	Publications: Number & Quality	95 (Good quality, national & international journals)
		Trust Areas	Communication for social change
		Patents	Nil
		Conference/ Workshops etc. organized	43(all) with one R.C (MD)
		Collaborations	With UNICEF, NGOs, DST-NCSTC, ICSSR
		Industry Interaction	Resource persons are invited regularly from industry
		Consultancy	Not yet
		Externally funded Projects	03 (UGC, UNICEF)
5	Extension Activity		Projects on participatory communication is going on; inbuilt curriculum too requires such activities
6	Achievements	Faculty	Dr. A Bora SUSI 2010 visit to USA- Ohio
		Students	About 50 students in all cleared NET(UGC)
7	Quality Assurance	Student Feedback	Taken very seriously and implemented
		Peer Evaluation	Continuously carried out
		Stakeholders relationship	Very complementary/cordial and mutually beneficial
		Any Other	

8	Extra- curricular Activities		Street plays, puppetry shows in town/villages
9	Student Placement		Placed across media outlets from private to public
10	Healthy Practices		Round the clock work culture Excellent rapport with former students for placement.
11	Specific suggestions for the Department for further improvement		<ol style="list-style-type: none"> <li>1. More effort for placement</li> <li>2. The post of professor should be filled up on a priority basis.</li> <li>3. Animation and Graphic Design should be started as a programme with additional faculty.</li> </ol>

**Department: Business Administration**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	Marketing:4    Operation:1 HR: 2            System: 1 Finance:4       Economics:1
		Students Profile	Male: Female= 80:49 Diverse Background
		Faculty: Students ration	1:7:15
2	Teaching-Learning Processes	Programmes	MBA, Post- Graduation Diploma in Tourism Management
		Curriculum	Updated 2013
		Flexibility in Curriculum Structure	Yes, General Electronics are available apart from Specialization
		Curriculum Updating	Yes, Regularly
		Delivery of Contents	Lecture, Assignment, Quiz, Presentation
		Motivating Creativity & Innovation	Yes
		Use of Teaching Aids	MMP, Video Conferencing and Web/online sourcing
		Grading	Relative Grading
		Implementation of Continuous Evaluation Process	Yes
3	Physical Facilities	Lecture Halls	6
		Teaching Aids	All Classrooms, Board Room Fitted with MMP. Video Conferencing in Seminar Hall
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	Computer Lab
		Seminar Hall	1
		Dept. Library	Coming Up
		For Faculty	Single room for Each Faculty
		Board Room	1
		MDP Room	1
		Drinking Water, Toilet etc.	Adequate No
4	Research & Consultancy Activities	Publications: Number & Quality	130
		Thrust Areas	Microfinance, Tourism, Rural Development, Human Resource Management
		Patents	
		Conference/ Workshops etc. organized	20
		Collaborations	With ISI Bangalore
		Industry Interaction	Regular
		Consultancy	2 ( on-going )

5	Extension Activity		Personal Development Programme Outreach Programme
6	Achievements	Faculty	Awards, Accolades, Nominated to Professional Bodies, regular publications.
		Students	Awards, Accolades, participation in various competitions
7	Quality Assurance	Student Feedback	Yes
		Peer Evaluation	
		Stakeholders relationship	
		Any Other	
8	Extra- curricular Activities		Yes
9	Student Placement		More effort needed
10	Healthy Practices		There is good student-teacher interaction
11	Specific suggestions for the Department for further improvement		1. More industry-institute interaction. 2. Sampark may be revived. 3. More effort for placement.

**Department: Sociology**

Sl No	Parameter	Sub Parameter	Observations & Suggestions
1	Human Resource	Faculty: Quality/ Diversity of Specialization	9
		Students Profile	69
		Faculty: Students ration	1:7
2	Teaching-Learning Processes	Programmes	NA, PhD
		Curriculum	
		Flexibility in Curriculum Structure	
		Curriculum Updating	2013 Syllabus Revised
		Delivery of Contents	
		Motivating Creativity & Innovation	
		Use of Teaching Aids	Internet, Overhead Projectors
		Grading	Relatives
		Implementation of Continuous Evaluation Process	Implemented
3	Physical Facilities	Lecture Halls	2
		Teaching Aids	Projector
		Laboratories: Space/Equipment/Arrangement & Operation/Utilization	
		Seminar Hall	N/A
		Dept. Library	Yes
		For Faculty	Individual Rooms
		Board Room MDP Room	
		Drinking Water, Toilet etc.	Exist
4	Research & Consultancy Activities	Publications: Number & Quality	
		Trust Areas	
		Patents	N/A
		Conference/ Workshops etc. organized	
		Collaborations	
		Industry Interaction	
		Consultancy	
5	Extension Activity		
6	Achievements	Faculty	
		Students	
7	Quality Assurance	Student Feedback	
		Peer Evaluation	
		Stakeholders relationship	
		Any Other	
8	Extra- curricular Activities		
9	Student Placement		

10	Healthy Practices		
11	Specific suggestions for the Department for further improvement		<ol style="list-style-type: none"> <li>1. Faculty strength should be increased to cover Core and specialised papers.</li> <li>2. There should be a focussed area of research on issues in ethnicity and conflict in the North Eastern Region.</li> <li>3. Extension activities may be carried out connecting the discipline to community.</li> </ol>