

# Report of the Academic Audit Committee set up at RCCIIT

## Background

The Academic Audit Committee formed by the Chairman, RCCIIT and notified by the Principal (on April 30, 2014) started functioning from June 18, 2014, met several times during the last five weeks and have collected a number of documents as detailed below from the Institute and the Departments.

1. The floor plan of all floors of the new building - **Appendix I**
2. Details of Rooms under the possession of each of the seven departments - **Appendix II**
3. Details of Labs conducted by various departments in a semester-wise fashion along with the names of courses conducted, number of classes in a week, number of students & groups - **Appendix III**
4. List of faculty in each department along with their designations – **Appendix IV**
5. List of Technical staff assigned to various departments – **Appendix V**
6. AICTE Approval Process Handbook – 2014-15

The Committee also met all the HOD's or their nominated representatives in person and inspected various class rooms, faculty rooms, seminar rooms, departmental libraries and laboratories in order to gain first hand experience about the functioning of the Departments.

## Primary Observations

Based on the above, the committee has the following summary observations:

- Even with the new building in place, there is a shortage of space when judged against the AICTE norm. This may ease to some extent, but will not completely eliminate, when the 4<sup>th</sup> floor rooms will be made available to the Departments.
- Despite the current shortage, the individual Heads of the Departments have been conducting the theory & lab classes in the space allocated to them through time & space multiplexing to a considerable extent.
- The institute has over the last few years started new programs and have also increased the number of intakes without proper planning.
- There does not appear to be the existence of a master plan as far as departmental growth and need are concerned.
- The Committee also observes that allocation of Rooms, Laboratories etc to the individual departments has been done in an ad hoc fashion resulting in allocation of floor areas grossly disproportionate to the number of intake of students in the Departments (See Table 1).
- There is also an acute shortage of faculty members and laboratory staff. The cadre ratio as required by AICTE is also not in place. Introduction of PG courses has further aggravated

this problem. Table 2 shows the shortage of faculty in Science & Humanities Department (catering largely to 1<sup>st</sup> year students) and other engineering departments (catering to the remaining years). It also shows the shortage of technical staff in various departments.

- Equipment purchased under the TEQIP program also appears to have been done in an arbitrary fashion due to the absence of a master plan.
- The procurements of instruments and equipment under TEQIP created further requirement of space. When such space requests were granted, perhaps on a first-come-first-served basis, it resulted in further disparities among the departments.
- The Committee also observes that cooperation among the Departments is necessary to achieve a solution in this difficult situation. Such cooperation, however, was not readily visible. In most cases the Departments wanted to keep possession of whatever space has been allocated to them. This is particularly true for Laboratory space.

## Principles Adopted

In view of the above the Committee feels that a consolidation of all the resources is essential at this juncture in order to arrest further ad hoc growth. The committee has formulated its recommendation based on the following principles.

1. The reorganization/reallocation of floor space should be done with least disruption to the current setup as far as practicable.
2. Utilization of space should be maximized.
3. Duplication of Labs/equipments etc should be minimized to the extent possible.
4. Requirements of the WBUT syllabi for compulsory courses should be satisfied first, before catering to the needs of optional or beyond-the-syllabus courses along with their corresponding infrastructure.
5. The committee has so far checked distribution of laboratory spaces and allocation of classrooms to different departments. They have also taken stock of quantitative manpower available for different courses. **On both these counts no weightage has been given to M. Tech courses.** Members have not visited the library and checked stock of books and journals. Availability of e-journals has also not been verified. Other students' amenities like canteen, playground, medical facilities etc. have not been checked. Research facilities for faculty members and training for staff have not been considered. Presence of large number of visiting faculties has also not been considered as the committee feels this hampers proper teaching environment.

**A comprehensive report considering above aspects will take more time to compile and call for further discussions with the Principal, Dean, H.O.D's and other officers of the Institute.**

## General Recommendations

The committee therefore recommends that the Institute management be requested to do the following:

1. According to NBA norms departmental spaces should be compact and not scattered in different places like different floors/buildings for convenience of faculty, staff and students.
2. To re-allot/reallocate spaces as given in our specific recommendations mentioned below. All concerned should be instructed to strictly abide by such allocation. The departmental heads may, however, be allowed to suggest better alternatives, if any, within a specified deadline without compromising the requirements of the other departments.
3. Any further allotment of space, or permission for buying additional equipment and instruments should strictly be made against a written office order and such allotments or permissions should be according to a master plan of growth of the institution, which should be drawn up for at least the next 3 to 5 years.
4. The society is requested to draw up a Master Plan of development for next five years or so, after consulting experts to make the Institute suitable for seeking Autonomous status from U.G.C and the University.
5. Procurements under TEQIP should also be in consonance with the above principles.

## Specific recommendations of the Committee for Room Re-allotment

**Following recommendations are suggestive in nature. Their implementation requires Administrative Orders from the Principal after due consultations with the affected persons.**

1. In the WBUT syllabus, subjects such as Circuit Theory lab and Control Systems lab have been specified to be conducted largely through simulation. No separate hardware lab should be allowed to be set up for these. Thus, the Committee recommends that EE391 and EE691 should be conducted only in N016A/B.
2. A number of laboratories exist that are operational only for one semester in an academic year, that too with low utilization. This includes N119, N314A, N313, N415 and 143. Concerned departmental heads should be instructed to utilize them in both semesters by relocating other laboratories to these locations if necessary and possibly vacate other spaces in the process.
3. A few lab courses have been shown to be allotted to more than one laboratory in a semester.
  - (i) In case the reason is that one lab is used for software-related experiments and the other for hardware-related experiments, the committee strongly feels that the concerned departments should be advised to prepare and submit a detailed report showing why they cannot be combined into a single laboratory or all such hardware- or software-related laboratories cannot be merged together to save space. Courses like EE391, EE591, EC(EE)391, EE691 belong to this category.

(ii) In all other cases of allotment of same lab course to multiple rooms, the concerned departments should be advised to either amend the allotment or submit a report to the Principal citing reason(s) as to why such allotment cannot be carried out. Courses in this category include EE591, EE693, ES291.

4. Basic Electrical & Electronics Engineering Laboratory is being offered by EE (for the Electrical Engineering part) and ECE department (for the Electronics Engineering part). However, EE department has also set up a Laboratory for the Basic Electronics Lab course. The Committee feels that one lab should suffice for Basic Electronics, which can be offered by ECE department. Also, the students should be divided into two groups – one doing Basic EE lab and the other performing experiments in Basic Electronics lab at the beginning of a semester – and the two groups swapped in the exact middle of the semester.
5. The Committee found the Graphics lab. in abysmally wretched condition. It should either be renovated or shifted to another room with required furnishing.
6. Some departments have allotted laboratory rooms for Seminar. It should be possible to assign these to Class rooms. Courses EE781, EI681 belong to this category.

In response to some urgent requirement of space, the Committee offers the following specific solutions.

7. Scrutiny of the old building revealed that no department has claimed possession of Room no. 142. This room is located opposite Room no. 143, which earlier housed the Basic Electronics Lab, but is now allotted to AEIE department. As Room 143 measuring 11.3m X 6.6m (74.58 sq.m.) is bigger than Room 142 that measures 9.5m X 7.0m (66.5 sq.m.) it is recommended that Room 142 be allotted to AEIE instead of Room 143. The Basic Electronics Lab should then be shifted from N312 to Room no. 143 in the old building. Room N312 should then be allotted to CSE department to house their Computer Organization & Architecture lab.
8. Or else, Basic Electronics Lab currently housed at Room N312 should be shifted to N116B and N312 should then be allotted to CSE department to house their Computer Organization & Architecture lab.
9. The AEIE laboratory in Room no. N314A should be shifted to Room no. 143 (or 142 as the case may be) as its utilization is only in one semester, that too for 6 classes/week. This vacant space should be allotted to CSE in keeping with the floor-wise rationalization, who can then use it for setting up their Project & Research lab.
10. The Process Control & Instrumentation laboratory of the AEIE department requires a space on the ground floor. This may be set up in the space of the previous common room in the old campus after some minor renovation.

For AEIE Dept. there is also a need for the setting up of Telemetry & Remote Control Lab. The committee suggests that this be set up in one of the existing labs of AEIE Dept. which is lying unutilized in the corresponding semester.

11. Instead of duplicating the Microprocessor & Microcontroller lab in different departments, it is worthwhile considering setting it up in one dept. For example, the Microprocessor & Microcontroller lab of AEIE can be conducted in the corresponding lab. of ECE Dept. therefore freeing Room no. 142/143 in the old campus. This room may then be used for other lab of AEIE, which has fewer no. of labs.

Carrying out the above modifications, it is strongly believed, will free up further space easing the difficult situation that currently exists.

\_\_\_\_\_  
(Prof. Samiran Choudhuri)

\_\_\_\_\_  
(Prof. Rana Dattagupta)

\_\_\_\_\_  
(Prof. Hironmoy Saha)

\_\_\_\_\_  
(Prof. Ajit K Chattopadhyay)

\_\_\_\_\_  
(Prof. Anup K Bandyopadhyay)