Continuous Improvement

The assessment process and the assessment feedback mechanism pave the way to initiate the continuous improvement plan of the program. The program follows several improvement plan based on the CLOSO assessment and evaluation feedback. The improvement process can be categorized as- i) Microscopic Improvement Plan and ii.) Macroscopic Improvement Plan. The improvement plan, which is implemented by the instructor himself to achieve the target level of satisfaction in any criteria, is termed as 'Microscopic Improvement'. The Microscopic Improvement is categorized in two parts as given below:

- Course Based Improvement (CBI)
- Rational Improvements Based on Faculty Survey

The improvement plan in which several constituents are involved is termed as 'Macroscopic Improvement Plan'. This improvement plan is categorized in different parts as given below:

- Substantial Improvements Based on Faculty Survey
- Improvements Based on Exit Survey
- Improvements Based on Alumni and Employers Survey.
- Improvements Through Curriculum

Below are the details of above-mentioned Microscopic and Macroscopic Continuous Improvement Processes.

Microscopic Improvement Plan

It is understood that the instructor's instruction and assessment plan is one of the important components of the continuous improvement plan. Consequently, the instructor can implement his own plan in few cases where he is solely responsible for this implementation. A detailed description of such type of implemented plans is described below.

Course Based Improvement (CBI)

The instructor recognizes those CLOs or SOs of his taught course, which is below the targeted benchmark, and then determines the changes in his teaching plan that he alone can implement to improve the learning outcomes. The instructor treats the reason of weakness in a particular CLO or a related SO and suggests changes in the teaching plan to be implemented in the next time the

course is being taught. In this way, each instructor give emphasis on the concerned SOs to be improved through his own action plan. As an example, some courses are practicing the designing, such as 437EE3 and 351EE3 by assigning some mini design project to the students. This is because many faculty members noticed that the students design abilities are very poor after studying the concerned SOs. Based on the experience obtained in those courses where there is a practice of design, an emphasis is given to introduce a similar mini design project for some other courses also. The courses are 331EE3, 332EE1, 321EE3, 334EE3, 341EE3, 342EE1 and 422EE3.

Rational Improvements Based on Faculty Survey

It is to be noted that the instructors can provide their suggestions through CLOSO, course review and course report of their course file on those issues where substantial improvement of the program is also possible. A sample questionnaire from CLOSO software faculty survey is given below-

Table 1 Faculty survey questionnaire from CLOSO software

NO.	Improvement Methods	Rational	Substantial
1	Pre-requisites should be modified		√
2	Grading in pre-requisites with more weight on fundamentals	√	
3	Students' English proficiency should be improved.		√
4	The CLO with weak performance be addressed earlier in the semester.	√	
5	More assignments related to the CLOs be given.	√	
6	More Quizzes related to the weak CLO be given.	√	
7	Assessment marks for questions related to the weak CLO be increased.	√	
8	Students' admission policy should be made strict.		√
9	Students' interest should be improved through lectures/site-visits.	√	
10	A different textbook should be specified.		√
11	Syllabus of the course should be revised.		√
12	Contact hours for the course should be increased.		√

13	Lab facilities should be improved.		√
14	Errors in exams be explained with elaboration to the students.	√	

Few of the improvement plan can addressed directly with the instructor's self-motivation, and some others can be addressed with the aid of some committees and council meeting. The first categories are termed as rational and the second parts are substantial improvements methods. In the above table out of 14 questionnaires, 7 are rational and 7 are substantial.

Macroscopic Improvement Plan

In order to implement the substantial improvement plan, several committees involvement is required. The department forms all sorts of steering committees from which the course instructor refers his improvement plan to the concerned committee. Usually, opinions obtained in the current academic year are discussed in the following academic calendar's 1st council meeting. For last few semesters, continually coming concerns in English language proficiency, admission policy, syllabus modification and textbook are macroscopic. Based on last few years' proposals, few major modifications have been performed already. Of those, the followings are state worthy:

- Introduction of the tutorial hours in many courses.
- Mounting the multimedia projector in each classroom.
- Appointment of lab Engineers for lab facilities improvement.
- Assigning a lab coordinator.
- Expediting the performance of surveying, curriculum and other committees.

The achievement level of almost all SOs have increased in a significant amount about 75% after adopting few of the macroscopic improvement plan. Therefore, there is a discussion to increase the satisfaction criteria to a new level at 70% for 70% of students from the next academic year.