SUBJECT REVIEW REPORT

DEPARTMENT OF MECHANICAL ENGINEERING

FACULTY OF ENGINEERING
UNIVERSITY OF PERADENIYA

4th to 6th May 2011

Review Team :

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1. SUBJECT REVIEW PROCESS

Subject review process of the UGC involves evaluating the quality of education within a specific subject or discipline, focusing on the student learning experience and on student achievement related to both undergraduate and taught postgraduate programs. It is understood that the final responsibility for quality and standards remains within the institution itself, since it alone has the powers to control and to change existing practices.

Subject review process at the Department of Mechanical Engineering (DME) of the University of Peradeniya was conducted following the guidelines provided in the Quality Assurance Handbook for Sri Lankan Universities, published by the CVCD and University Grants Commission in July 2002. The quality of education was reviewed at the Departmental level according to the aims and learning outcomes listed below as given in the Self Evaluation Report (SER):

1. Curriculum design, content and review
2. Teaching, learning and assessment methods
3. Quality of students including student progress and achievements
4. Extent and use of student feedback (both qualitative and quantitative)
5. Postgraduate studies
6. Peer observation
7. Skill development and
8. Academic guidance and counseling

The Review Team visited the DME for three days, namely 04th, 05th and 06th of May 2011. The itinerary of the three-day visit is given in Annex 1. The information related to the eight aspects highlighted above were collected through discussions with the Vice-Chancellor, the Dean, Head of the Department, members of the academic and non-academic staff, student counselors, postgraduate students, a group of undergraduate students (see Annex 2 persons met during the visit), and by peer observation of the teaching process (see Annex 3), by observing the facilities available at the DME and the Faculty (see Annex 4) and by examining the documents provided by the DME (see Annex 5).

Each of the aspects was judged as good/satisfactory/unsatisfactory, examining the strengths, good practices and weaknesses in each. Considering the judgment of the eight aspects, an overall evaluation is reported at the end of this report among the three judgments confidence/limited confidence/no confidence in the academic program.

2. BRIEF HISTORY OF THE UNIVERSIT, FCULTY AND THE DEPARTMENT

The University of Peradeniya is the successor to the University of Ceylon established in 1942 as the first university in Sri Lanka. It was shifted to present site in Peradeniya in 1952. At present, it has eight faculties including the Faculty of Engineering. The Faculty of Engineering was established in 1950 and shifted to the present location from Colombo in 1964. It has now eight departments including six degree offering departments. In 2001, the faculty introduced the semester based course unit system by replacing the year long courses and year end examinations.

The mission of the DME is “to acquire, promote, and disseminate knowledge of engineering sciences and their application to improve the quality of life and, in particular, to equip present and future generations with skills and attitudes to attain competences as professional engineer and to interact with industry and community for sustainable development of humankind”.

Currently annual intake of the faculty is 415 students and they want to follow a General Programme in Engineering during the first two semesters of study. From third semester onwards students specialized in Mechanical Engineering and the current intake to the department is around 40. The DME has conducted a taught postgraduate programme in the recent past, but, no records can be found about completion rate.

At present (May 2011), there are 19 academic cadre positions in DME, out of which only 09 positions are filled. Four Engineering Teaching Assistants work in administration of Lab sessions. Two positions exist for drawing office assistants, one for clerk, three for technical officers, two for mechanics and eight for lab attendants/laborers.

A separate Faculty library is available for the use of the students both borrowing and reference and books can also be borrowed from the main University library. The Faculty has a Computer Centre and a well equipped English Language Laboratory for engineering students to improve their IT and English language skills, respectively.

3. AIMS AND LEARNING OUTCOMES

3.1 Aims

According to the SER, the aim of the department is to provide:

- A degree of highest standards resulting from a high quality undergraduate programme, recognized anywhere in the world, imparting a sound engineering knowledge base with special emphasis to mechanical engineering,
- An opportunity to build cognitive skills that are required to develop themselves professionally,
- Methods to develop analytical skills and psychomotor skills required in an engineering and production environment,
- An environment to develop effective communication skills in conveying technical information and otherwise,
- Opportunities to gain confidence to work as an individual to execute projects, organize activities etc and also to be able to work in a team,
- Ways to develop leadership skills,
- Means of growing in awareness of social responsibility and cultivating an ethical and technically sound professional attitude,
- A window to latest developments in the engineering practice in Sri Lanka and elsewhere;
- A dynamic staff in the department sensitive to academic and social matters of students as well as other members of the staff; and
- Provide guidance by the staff to students on academic as well social matters.

3.2 Learning Outcomes

On successful completion of the degree courses specializing in Mechanical Engineering, the student should have the following major attributes:

- A sound mechanical engineering knowledge base supplemented by the basic knowledge in other engineering spheres and to be able to apply this knowledge in advanced, state-of-the art areas of research, development and practice;
- Good analytical skills helpful in both engineering and managerial spheres;
- Have basic dexterous skills (psychomotor skills) that would be helpful in understanding and performing, wherever necessary, tasks that require such skills;
- Be able to effectively communicate technical information orally, in the form of engineering drawings, reports etc. using conventional as well as modern audio-visual media;
- Be able to confidently carry out tasks as an individual or as a member of a team on engineering terms as well as in society as a whole;
- Good cognitive skills that are essential for the fulfillment of being a true professional by way of power of assimilation, self learning and critical thinking;
- Satisfactory leadership skills to execute a task successfully by motivating others;
- Have sound communication skills required to progress in the corporate world or in a research and development field;
- Be aware of the meaning and value of his/her work to the client as well as the society as a whole, and be alive to the various aspects of engineering practice in Sri Lanka and elsewhere; and
- Be able to act professionally and ethically and take responsibility within the limits of competence.

4. FINDINGS OF THE REVIEW TEAM

The Review Team findings are given in the following sub sections under the headings 4.1 through 4.8.

- Curriculum design, content and review
- Teaching, learning and assessment methods
- Quality of students including student progress and achievement
- Extent and use of student feedback
- Postgraduate studies
- Peer observation
- Skill development and
- Academic guidance and counseling.

4.1 Curriculum Design, Content and Review

A semester based curriculum of the department was introduced in 2001 with new by-laws relating to the Degree of Bachelor of the Science of Engineering at the Faculty of Engineering

This curriculum had been styled in conformity with the existing practices at the faculties of engineering at the Universities of Moratuwa and Ruhuna. Minor revisions of the curriculum were reported from time to time by taking into consideration of feedbacks from the graduates engaged in Peradeniya Engineering, Faculty Alumni Association (PEFAA) and practicing engineers in the industry through Industry-University Liaison Committee. However, the present curriculum has been adopted for more than 10 years and a major revision of the curriculum has not been scheduled yet catering for the needs of the industry and the Sri Lankan society.

On a general perspective, a clear indication of the attributes of engineering graduates with and without Honours is not provided. This is an important element that establishes the generic rules in setting up syllabi and program learning outcomes and has to be clearly and strongly stated.

In the Final Course of the programme, nearly 50% of the Core Course units have been offered by other degree offering departments such as Civil, Chemical & Process, Electrical & Electronic and Production Engineering, and a supportive department of Engineering Mathematics. This seems to be a multi-disciplinary approach and students can get benefit of that learning from well qualified teachers from different subject areas.

From third year or semester 5 onwards, students are allowed to follow a number of courses under the category of Technical Elective (TE) and they can earn 25% - 30% of the total credits required by the overall programme by selecting suitable technical elective courses in order to get a specialized knowledge on a particular area under Mechanical Engineering. A clear guideline for selecting TE courses for three different streams within Mechanical Engineering is provided by the department to the students.

The presence of two supportive departments namely Engineering Management and Engineering Mathematics in the faculty enhances the opportunities available to the students to widen their outlook and capabilities by acquiring knowledge and skills in non-technical modules.

The department has been able to have its curriculum accredited by the Institute of Engineers Sri Lanka (IESL), thus enabling its graduands to obtain associate membership of the IESL.

Documents were made available to the Review Team during the evaluation that displayed not only the outline syllabi of all courses but details such as course objectives, the coverage of contents, laboratory works as applicable, together with the time allocation for each topic. But, it was observed that for some of the courses Intended Learning Outcomes (ILOs) were not clearly stipulated.

The Review Team is of the view that the coverage of depth and breadth of the various courses in the curriculum would positively contribute to the formation of an engineering graduate well suited to meet the needs of the country.

The Review Team further notes, that the in-course assessment procedures are reviewed regularly and appropriate changes implemented by the Department as and when required.

Even though a major curriculum revision has not taken place with the participation of relevant stakeholders, the above facts confirm that the Department has adopted its full strength in Curriculum Design, Content and Review.

In relation to the Curriculum Design, Content and Review, the rating of the Review Team is GOOD.

4.2 Teaching, Learning and Assessment Methods

Workload of the student over a period of 8 Semesters is observed to be distributed uniformly (18 credits per semester) without overloading any particular semester. Teaching and Learning is facilitated through a combination of lectures, laboratory work, tutorials, project work, guest lectures, field visits and industrial training.

The method of evaluation adopted by the Department comprises of continuous assessment through laboratory work in selected courses, tutorials and assignments and the end of semester examination. Evidence was produced to the Review Team that the end of semester examination question papers in almost all the modules had been moderated by internal senior academics in the Faculty. But, it would be a more rigorous practice and ensure quality if moderations of the question papers are done by senior academics drawn from the Faculties of Engineering in other universities. Furthermore, the practice of overall moderation by an external examiner could also be introduced even though it is practically difficult under semester course unit system.

The commitment and dedication of the staff were evident by the fact that the results of the end of the semester examination are usually released within four weeks from the end of examinations.

The review Team observed a deficiency in supervision and participation of senior academics including module coordinators in conducting laboratory work. In addition, the laboratory reports submitted by the students at the conclusion of a laboratory session are scrutinized only by ETAs or temporary staff members (Instructors), in contrast to the practices observed elsewhere. These are matters of concern for the Review Team and thus recommended to be addressed by the DME.

The Engineering Computing Centre facilitates about 200 users at a time for long hours (till 20:00 hrs). A Local Area Network links the Computing Centre with other units of the University. The speed of access to the Internet was observed to be appropriate.

The Faculty has a library with about 35,000 volumes and 43 subscribed journals to serve the academic community (staff and students). It provides books to students on loan for a period up to two weeks and for overnight reference. There exist other standard practices available in similar libraries for accessing wider resources. Differences of opinion between the library staff and the students surfaced regarding the availability of multiple copies of recommended textbooks.

Good practices adopted in other established faculties in respect of undergraduate projects and industrial training are in place in this Department too. Both the staff and students emphasized the usefulness of student presentations in the course of project work. It was reported that this

would enhance their communication skills. This contributes significantly to the moulding of a well-rounded engineer with supplementary skills.

It is a matter of concern that the Department is severely handicapped due to an acute shortage of senior academic staff (filled 9 out of 19) and those with professional qualifications related to engineering. This requires immediate attention of the higher authorities, especially in a situation where the Faculty is planning to increase its intake of students. The excessive dependency on academic staff from other departments and visiting staff cannot be accepted as a solution to this issue.

The Review Team notes with satisfaction the use of modern technologies in the delivery of modules. Especially, the Department has established an e-learning culture among the students. The students have access to Faculty of Engineering e-Learning System (FEeLS) and find details of academic activities such as delivering of lecture materials, tutorials, assignments, projects and laboratory sessions.

The cleanliness and orderliness of lecture rooms, seminar rooms, drawing room, Computer centre and library deserve special mention.

In spite of the few drawbacks identified by the Review Team, it is of their view that the teaching, learning and assessment methods currently in place are adequate to achieve the objectives that the Department had set for itself.

The Review Team rates this aspect as GOOD.

4.3 Quality of Students, including Student Progress and Achievements

Students are offered a place to study at the Faculty of Engineering based on their preference and depending on their Z-score at the GCE Advanced Level examination. The process of allocating students to the Engineering Faculty (and other engineering faculties in Sri Lanka) is handled by the University Grants Commission, a government body. Out of these students, a maximum of 40 students are assigned to the Department of Mechanical Engineering based on student preference and their GPA acquired during the first and second semesters. As such the department has no control over the quality of the students entering the program.

According to SER, the quality of most students entering the program is not very poor. Between 54% (batch E/04) and 97% (batch E/02) of the students have a GPA of between 2.70 and 3.29, which is on pour with a Second Lower pass. There is little change in the student GPA as the students progress through the next semesters although, a few students get better grades while a few others get worse grades.

Looking at the statistical data based on four batches that graduated recently, it was revealed that about 10% of students who enter the program do not graduate with their own batch. For the E/02 batch 11.4% (4 of 35), for the E/02A batch 10.2% (4 of 39), for the E/03 batch 12.5% (5 of 40) and for the E/04 batch 5.4% (3 of 37) did not graduate with their own batch. These students have either subsequently graduated or are still continuing in the program.

It is observed that most students find employment within a few weeks of completing their degree. A few students join overseas higher degree programs. From six recent batches (E/00 batch to E/04 batch) at least 15 students have joined overseas higher degree programs. Many more join local higher degree programs.

Significant amounts of project based work in years two three, and four seem to be giving the students from the department an edge over their counterparts from other engineering faculties. This is evident through the repeated winning of the coveted M.D.J.F. Jayamanne Memorial Award of the Institution of Engineers, Sri Lanka.

There is evidence to show that the students of the department are involved in extracurricular activities, developing time management and leadership skills among other soft skills. During the discussion with the students it was clear that many were confident enough to express their views and competent enough to do so in the English language.

Discussions with the student counselors of the faculty and the chief student counselor reviled that many students from the faculty of engineering are involved in sports activities and social activities. The position of the President of the sports council has been held by a student from the engineering faculty for five consecutive years. One of the main social activates of the Faculty of Engineering is Arunalu a program where the engineering students get involved in teaching activities in rural schools. The students of the Department of Mechanical Engineering are heavily involved in these activities.

The Department has identified that the students lack report writing skills and self learning skills for which the Department has already planned to take corrective action through introducing new tasks targeting the development of these specific skills.

The Review Team noted that the quality of students admitted to the Department has not been an impediment in producing good quality engineers. In this context, it is judged that the performance of the Department is commendable.

Thus, it is the view of the Review Team that the Quality of Students, Student Progress and Achievements of the Department be rated as GOOD.

4.4 Extent and Use of Student Feedback, Qualitative and Quantitative

Regular feedback is taken from students for each lecturer and each module. The feedback is handled by a party outside the department namely the assistant registrar (AR) Engineering Faculty. The usual practice is for the lecturer to distribute the evaluation forms at his last lecture. The forms are then collected by a member of the AR's office. The AR's office is also responsible for summarizing the feedback and preparing a summarized report on each set of feedback forms. The feedback form has two main sections which are the "Course Evaluation" and the "Teacher Evaluation". There are 16 questions under course evaluation and 12 questions under teacher evaluation. There is also a space under each of the two sections for students to write "Any other comments" they may have.

The responsibility of handling the feedback is outside the Department. This may encourage students to give unbiased feedback. Summarized feedback comes back to the lecturer and the head which will save the lecturer's time. Also, having the summarized information the head

is in a position to discuss any aspects of the feedback with the lecturer if there is a need to do so. But, there is no evidence that the information gathered may be used effective manner.

Discussions with the students reviled that Feedback was taken regularly. However, students were of the opinion that feedback was not used to improve their course and therefore they did not take it very seriously. Therefore, it may be worth giving the students some feedback on what has changed as a result of the feedback given by students on a previous occasion.

Although feedback on lectures and lecturers is taken regularly there is no evidence that feedback is taken from students on Projects (e.g. ME406 and ME407) and practical/laboratory classes. Perhaps, it is worth developing some feedback forms for those aspects of the course as well.

What students write under "Any other comments" is not communicated to the lecturer unless the lecturer himself collects the feedback form from the students and reads the comments before it is submitted to the AR's office. It is better if the AR's office sends the student comments or the feedback forms themselves back to the lecturer.

The time between taking feedback and relaying the summarized information to the lecturer should be reduced as there seems to be significant delays in the process at times. This was evident from the lack of recent (for year 2010) summary sheets in the department.

The Review Team observes that a concentrated effort must be made to make use of the feedback information that has been so carefully collected. It should continue to make use of this information to make qualitative and quantitative improvements in the teaching and learning process.

The view of the review team is that the Extent and Use of Student Feedback of the Department can be judged as SATISFACTORY.

4.5 Postgraduate Studies

A postgraduate (PG) taught course has commenced in 2001. The program consisted of a 12 month PG Diploma in Mechanical Engineering (PGDip) and an 18 month Master of Science of Engineering (MScEng). So far only first batch of 16 postgraduate students has been taken in and the completion rate of the programme has not been reported precisely. According to the SER the postgraduate programme has not been very successful due to various reasons. One of the main reasons is that the acute shortage of qualified senior staff in the department.

Remedial action is being taken to overcome these difficulties. Three probationary lecturers ware sent for overseas postgraduate studies. It is hoped that they will return and thereby reducing the shortage of qualified lecturers which is one of the barriers to conducting postgraduate taught courses.

In the department, plans are being made for a "four plus one" program where student who qualify are given the opportunity to follow a one year Masters program soon after their graduation.

Senior staff members of the Department are currently supervising seven M.Phil students who are registered through the Department in Engineering Research and Postgraduate Studies Unit of the University of Peradeniya.

The Review Team observes the prevailing situation as one in which the Department by itself has no control.

It is the view of the review team that the Postgraduate Studies of the Department be rated as SATISFACTORY.

4.6 Peer Observation

A formal way of conducting the peer reviews has already been introduced by the department and also started as a pilot project. No evidence was available other than a prepared form to observe the peer review process. According to the information given by the staff members some completed forms are available but these documents are with a staff member who is currently on overseas leave.

It is recommended to initiate the formal peer review process with proper procedures to analysis, feedback and corrections if necessary.

The Review Team indentifies that the initial steps taken by the department to develop peer observation. However, this should be put into practice in the future.

It is the view of the Review Team that the present status of the Peer Observation adopted by the members of the staff be rated as SATISFACTORY.

4.7 Skills Development

Skills development activities seem to be well in progress. This was revealed mainly during the discussion with students which was participated by second and third year students. They were forward, confident and discussed in fluent English. They also pointed out their problems in a very professional way. The observed presentations of the design projects of the students were also gave a positive message to the reviewers with regard to their soft skills developments.

The steps taken to develop the skills of the students were embedded in the curriculum. The soft skills are mainly developed during the first year. The English Language Teaching Unit (ELTU) is taking a genuine effort, which has to be highly appreciated, to enhance not only English knowledge but also the writing, presentation, negotiation, effective note-taking skills etc.

After completing the first year further enhancement of soft and hard skills is developed within the department. However it was observed that there are no specific subjects offered by the department to develop the skills of the students. This may be due to the increased workload of the departmental staff. After discussion with staff members and scrutinizing the curriculum and syllabi it was found that the necessary elements to the development of skills are embedded in most of the subject modules.

It is recommended to frequently organize guest lectures by eminent personalities, if possible by native English speakers. This can be introduced at the faculty level as "Mentoring Program".

The review team indentifies that the steps taken by the department to develop student skills is successful.

In relation to the Skill Development, the rating of the Review Team is GOOD.

4.8 Academic Guidance and Counseling

A well functioning academic guidance and counseling process is established in the university in the faculty as well as in the department. It was observed that one chief professional counselor is appointed by the VC to the university and another 7 student counselors are appointed in the Faculty of Engineering.

The review team was highly impressed by the chief professional counselor. She is not only engaged in counseling, but also in many co-curricular activities for the students such as sports and cultural activities to enhance the socio-economic and cultural harmony among the different ethnic student groups. She has very god communication ties with the faculty counselors and had a good rapport among them.

Counselors in the faculty are mainly engaged in academic issues and they also support to solve personal problems of the students. In the latter case the faculty counselors refer major cases to the professional counselor of the university.

No evidence was found about conducting mentoring programs for students and therefore, the reviewers recommend to introduce a mentoring program in the department as well as in the faculty level. Also, it is recommended to appoint more professional counselors to support the activities conducted by the Chief Professional counselor.
The Review Team is highly impressed by the approach adopted by the Faculty in general, and the Department in particularly, in developing an excellent staff student relationship resulting from the academic guidance arrangement in place.

It is the view of the review team that the present situation with regard to Academic Guidance and Counseling adopted by the Department be considered as GOOD.

5. CONCLUSION

Curriculum Design, Contents and Review:
The Department has been able to do minor revision to its existing curriculum taking into consideration the views of all stakeholders. It is noted as difficult for the department to take initiative to make major revision to the curriculum unless the Faulty makes a collective effort to make way for it. The Review Team indicates its satisfaction to the minor changes affected to the existing curriculum.

Judgment: ***Good.***

Teaching, Learning and Assessment Methods:

Despite the fact that there is an acute shortage of academic staff in the Department, it was evidence that teaching, learning and evaluation is carried out through a combination of lectures, tutorials, laboratory work and assignments, field visits as applicable and the end of semester examination. The work load of the students was observed to be evenly distributed over the 8 semesters. The Review Team recommends that the laboratory work be carried out under the supervision of academic staff, and not solely by the academic supportive staff.

Judgment: ***Good***.

Quality of Students, including Student Progress and Achievement:

The final results of the four batches (E02, E02A, E03 and E04) who have completed the Degree program indicate that a success rate of almost 100%. Almost all of them have obtained full employment while a few have been able to secure admission in reputed foreign universities for higher studies.

Judgment: ***Good.***

Extent and Use of Student Feedback:

The Review Team notes with satisfaction the collection of feedback information compiled by the Department with reference to the evaluation of course contents and Teacher performance. However, the review team is not convinced that this information is made use of effectively for qualitative and quantitative improvement in the teaching and learning.

Judgment: ***Satisfactory.***

Postgraduate Studies:

The Review Team was presented with evidence that the Department had started a Postgraduate Programme in Mechanical Engineering in past time, but had not been successful due to shortage of senior staff members and various other reasons. However, in the absence of adequate senior staff, it is unlikely that the Department could show any meaningful progress in postgraduate studies in the foreseeable future.

Judgment: ***Satisfactory.***

Peer Observation:

This process is observed to be still in the formative stage and needs to be further developed.

Judgment: ***Satisfactory.***

Skills Development:

The existence of supportive departments of Mathematics and Management and English Language Teaching Unit (ELTU) at the Faculty of Engineering to provide services to other academic Departments is a good practice. The students have the choice of non-engineering modules to choose from. This is laudable.

Judgment: ***Good.***

Academic Guidance and Counseling:
There is a well developed academic guidance and counseling system in place.

Judgment: ***Good.***

Based on the observations made during the visit by the Review Team, the eight aspects under reference are judged as follows:

Aspect Reviewed	Judgment
Curriculum Design, Content and Review	Good
Teaching, Learning and Assessment Methods	Good
Quality of Students including Student Progress and Achievements	Good
Extent and Use of Student Feedback, Qualitative and Quantitative	Satisfactory
Postgraduate Studies	Satisfactory
Peer Observation	Satisfactory
Skills Development	Good
Academic Guidance and Counseling	Good

6. RECOMMENDATIONS

The Review Team makes following recommendations to improve the quality of teaching, learning and evaluation process. The recommendations are given under three categories titled 'human resources', 'physical resources' and 'procedures and processes'.

Human Resources

- Although, provision is made for adequate cadre positions in the DME, recruitment and retention of senior staff is observed to be difficult. As a result there is a heavy dependency on temporary and visiting staff. The University should make a concerted effort to attract and retain qualified academic staff. Involving qualified Visiting Staff is much encouraged.
- It was revealed that time taken for the present recruitment process of academic and non-academic staff members is too long and that may severely affect to academic activities of the department. It is recommended that the higher authority should take necessary actions to expedite this process.
- It is reported that in recruiting senior lecturers, they may not positioned at the right salary scale considering their valid qualifications. The university should rectify this type of anomalies to get service of senior lecturers efficiently.
- It is recommended that the junior academic staff is provided with training required for their promotion and the non-academic staff with training required for handling, latest software, respective equipment and their maintenance.

Physical Resources

- The physical facility available such as office room space for lecturers of the Department is inadequate. Acquiring latest equipment for laboratories in the Department is recommended.
- The computer laboratory in the Department has very few computers and it is difficult to conduct an application software class in it. Continuous updating of the computer laboratory, IT equipment and software is recommended.

Procedures and Practices

- A major curriculum revision with the supports of other departments of the Faculty and all stakeholders is recommended.
- Question Papers of end-semester examinations are recommended to be sent to outside moderators, especially relevant senior academics in other Engineering faculties. Examination paper moderation should be made more formal and comments recorded/archived. Further, encourage model solutions during moderation
- Proper use of the information collected from the student feedback to improve the teaching-learning process is recommended.
- Department could envisage establishing an IT based Management Information System (MIS)
- General non-participation of senior staff in conducting laboratory classes and leaving this activity in the hands of ETAs and the temporary staff is inappropriate. The Review Team recommends that the senior academic staff take active participation in Laboratory teaching. Department should envisage having more field/industry visits for the students to get more confidence in applications and use of engineering principles/design

7. ANNEXES

Annex 1. ITINERARY OF THE 3 DAY VISIT

Day 1 (Wednesday 4th)		
From	**To**	**Activity**
8.00 a.m.	8.30 a.m.	Meeting with the Dean/Engineering, with the Head/Mechanical at the Dean's office
8.30 a.m.	9.00 a.m.	Private meeting of review panel with council representatives at seminar room 1
9.00 a.m.	9.30 a.m.	Discuss the agenda for the visit at seminar room 1 accompanied by Prof. RKL
9.30 a.m.	10.00 a.m.	Meeting (s) with VC at VC's office accompanied by Prof. RKL
10.00 a.m.	10.30 a.m.	Tea with all Dept. staff
10.30 a.m.	11.30 a.m.	Department presentation on the self evaluation report
11.30 a.m.	12.30 a.m.	Discussion at seminar room 1 with all staff
12.30 a.m.	1.30 a.m.	Lunch at Reading room AML
1.30 p.m.	4.00 p.m.	Observing the other facilities (Library, Workshop, ELTU, Seminar rooms, other Department labs, ITCGU
4.00 p.m.	5.00 p.m.	Meeting with undergraduate students at EOE theatre
5.00 p.m.	6.00 p.m.	Brief meeting of reviewers at Reading room AML
Day 2 (Thursday, 5th)		
From	**To**	**Activity**
8.30 a.m.	9.00 a.m.	Observing presentation ME 309 At seminar room 2 accompanied by LUB
9.00 a.m.	9.30 a.m.	Observing presentation ME 209 At seminar room 2 accompanied by Chamila
9.30 a.m.	11.30 a.m.	Observing documents (working tea) At Reading room AML accompanied by LUB
11.30 a.m.	12.30 a.m.	Meeting with technical staff and other non-academic staff at seminar room 3
12.30 p.m.	1.30 p.m.	Lunch at Reading room AML
1.30 p.m.	2.00 p.m.	Observing lecture ME 508 by TL Asela Uyanwatta
2.00 p.m.	2.30 p.m.	Observe teaching ME 207 at thermo lab
2.30 p.m.	3.00 p.m.	University tour to observe other facilities with Drs. SM/WPD and Chamila/Suranjith
3.00 p.m.	3.30 p.m.	Observe teaching / ME 302 Design at DO I accompanied by Chamila/Suranjith
3.30 p.m.	4.00 p.m.	Observe teaching / ME 302 Design at CC/observing facilities at CC
4.00 p.m.	5.30 p.m.	Observing facilities at Mechanical Department
5.30 p.m.	6.00 p.m.	Brief meeting of reviewers
Day 3 (Friday, 6th)		
From	**To**	**Activity**
8.30 a.m.	9.00 a.m.	Academic guidance and counseling and advisors meeting at Reading room AML
9.00 a.m.	9.30 a.m.	Observe lecture / ME 207 at room no 7 accompanied by Chamila/Suranjith
9.30 a.m.	10.00 a.m.	Observe lecture ME 511 at room no 14
10.00 a.m.	10.30 a.m.	Tea break
10.30 a.m.	11.00 a.m.	Reviewers private meeting
11.00 a.m.	12.00 noon	Meeting with head of the Department and staff for reporting at reading room AML
12.00 noon	1.00 p.m.	Lunch break
1.00 p.m.	5.00 p.m.	Report writing

Annex 2. PERSONS MET DURING THE VISIT

Academic Staff Members

	Name	Designation
1	Mr. S.K. Seneviratne	Senior Lecturer
2	Dr. P.B. Boyagoda	Senior Lecturer
3	Prof. L. Rajapaksha	Senior Lecturer
4	Dr. S.D.G.S.P. Gunawardana	Senior Lecturer
5	Mrs. S. Mangalika	Sen. Eng. Teaching Asst.
6	Mrs. L.U. Bakmeedeniya	Sen. Eng. Teaching Asst.
7	Mrs. I.W. Kularatna	Sen. Eng. Teaching Asst.
8	Mrs. H.M.U.S. Kotakadeniya	Eng. Teaching Asst.
9	Dr. D.H.S. Maithripala	Senior Lecturer
10	Dr. Primal Fernando	Senior Lecturer
11	Mr. S.N.B.M.C. Ranasingha	Tem. Lecturer
12	Mr. S.B. Tennakoon	Tem. Lecturer
13	Mr. D.M.A.R. Uyanwatte	Tem. Lecturer
14	Mr. T.M.S. Tennakoon	Tem. Lecturer
15	Mr. V. Gnanaruban	Tem. Lecturer
16	Mr. V. Shanmugaratnam	Visiting Lecturer

Non - Academic Staff Members

	Name	Designation
1	Mr. A.S. Wettewa	Drawing Office Assistant
2	Mrs. C. Medagoda	Drawing Office Assistant
3	Mr. P.H.M.N. Bandara	Clerk
4	Mr. B.A. Lethbridge	Staff Technical Officer
5	Mr. A.S.K. Jayasundare	Staff Technical Officer
6	Mr. K.M.U.J. Herath	Technical Officer
7	Mr. E.H.J. de Silva	Mechanic
8	Mr. D.M. Wijesuriya	Mechanic
9	Mr. D.G. Yasaratne	Lab. Attendant
10	Mr. D.P.K. Rajapakse	Lab. Attendant
11	Mr. A.G. Nandana Bandara	Lab. Attendant
12	Mr. E.G. Ariyadasa	Labourer Gr. II
13	Mr. K.G. Premachandra	Labourer Gr. II
14	Mr. K.G. Jayasooriya	Labourer Gr. III
15	Mr. W.R. Harison	Labourer Gr. III
16	Mr. B.G.J. Jayaratna	Lab. Attendant

Annex 3. TEACHING SESSIONS OBSERVED

1. Lecture (ME508: Automobile Engineering, 3rd and 4th Year students by Mr.D.M.A.R. Uyanwatte)
2. Lecture (ME207: Thermodynamics II , 2nd year students by Dr. Primal Fernando)
3. Lecturer (ME512: Advanced Vibration, 4th year students by Dr. D.H.S. Maithripala)
4. Students' Presentations (ME309: Mechanical Engineering Project I)
5. Students' Presentations (ME209: Mechanical Design)
6. Practical (ME303 Applied Thermodynamics II)
7. Practical (GP108: Electricity)

Annex 4. FACILITIES OBSERVED

1. Lecture theatres
2. All laboratories
3. Office space and staff rooms
4. Faculty library and computer centre

Annex 5. DOCUMENTS OBSERVED

1. Lecture notes and tutorials
2. Laboratory (Practicals) sheets – Old and new curriculum
3. Module contents – Old andnew curriculum
4. Lists of academic advisors
5. Training programmes offered
6. Academic calendar
7. Corporate plan
8. Result sheets
9. Industrial visits (places)
10. List of examiners and moderators
11. Moderator comments on question papers
12. Marked assignments (Course work reports on practicals)
13. Industrial training analysis
14. Graduates feed back on old curriculum
15. Questionnaire for final year students and fresh graduates
16. Students hand book 2010
17. Amended rules and regulations together with students comments
18. Minutes of Departmental meetings
19. Personal files of lectures who are on study leave
20. Reports on industrial training and daily diaries
21. Project reports