

SUBJECT REVIEW REPORT

**DEPARTMENT OF
ELECTRICAL ENGINEERING**



**FACULTY OF ENGINEERING
UNIVERSITY OF MORATUWA**

06th to 08th February 2006

Review Team :

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CONTENTS

	Page
1. Subject Review Process	2
2. Brief History of the University, Faculty and the Department	2
3. Aims and Learning Outcomes	3
3.1. Aims	3
3.2. Learning Outcomes	3
4. Findings of the Review Team	4
4.1. Curriculum Design, Content and Review	4
4.2. Teaching, Learning and Assessment Methods	5
4.3. Quality of Students Including Student Progress and Achievements	6
4.4. Extent and Use of Student Feedback, Qualitative and Quantitative	7
4.5. Postgraduate Studies	7
4.6. Peer Observation	8
4.7. Skills Development	9
4.8. Academic Guidance and Counseling	9
5. Conclusions	9
6. Recommendations	11
7. Annexures	12

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. The subject review process evaluates the quality of 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 Electrical Engineering (DEE) of University of Moratuwa 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 according to the aims and learning outcomes given in the self-evaluation report.

The following eight aspects of education were reviewed at the Departmental level:

Curriculum design, content and review;

Teaching, learning and assessment methods;

Quality of students including student progress and achievements;

Extent and use of student feedback (both qualitative and quantitative);

Postgraduate studies;

Peer observations;

Skills development;

Academic guidance and counseling

The review team visited the department for three days, namely 6th, 7th and 8th February 2006. The agenda of the three-day visit is given in Annex 1. The information related to the above eight aspects were collected by having discussions with the Dean, Head of the Department, members of the academic and non-academic staff, a group of undergraduate and postgraduate students (see Annex 2 for persons met during the visit), by peer observation of the teaching process (see Annex 3), by observing the facilities at the Department (see Annex 4) and by examining the documents provided by the Department (see Annex 5).

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

2. BRIEF HISTORY OF THE UNIVERSITY, FACULTY AND THE DEPARTMENT

The University of Moratuwa was inaugurated by gazette notification on 15th February 1972. The technical college that had existed in this location has later been converted to a degree-awarding institute.

The vision of the Department is to be the Internationally Recognized Center of Excellence in Sri Lanka for Higher Education, Research and Development activities in the broad field of Electrical Engineering.

The mission of DEE is to produce Electrical Engineering graduates that have been trained to nurture an inquiring mind and have developed skills to face a diversity of challenges with emphasis on national relevance, innovation, creativity and employability and to be a leader in

contributing to sustainable scientific, technological, social and economic development of Sri Lanka.

Current annual intake of the Faculty of Engineering is about 740 students and they follow a common course during the level 1 study. From level 2, students specialize in Electrical Engineering (EE) and the current intake to the department is 50. Further the department offers three postgraduate taught course and postgraduate research degrees. The number of full time postgraduate students is 5.

At present (2006 February) there are 21 Academic Cadre positions in DEE, all of which are filled. Seven positions exist for Technical Officers, and one for clerk; 3 positions for Electricians, and six positions for Laboratory Attendants are also filled. Out of two labourer positions one is filled. Two positions existing for craft demonstrator are to be filled. (Source: Details provided by HOD, February 2006).

The students have the access to the university main library in addition to a small collection in the department.

3. AIMS AND LEARNING OUTCOMES

3.1. Aims

The aim of the department (according to the SER) is to:

- Provide a high quality undergraduate degree programme designed to offer an exceptional learning experience in an atmosphere of free inquiry and debate.
- Provide diverse opportunities to suit individual students, within the framework of a modular structure.
- Enable students to obtain cognitive, affective and psychomotor skills relevant to the field of study that will facilitate their continued development after graduation.
- Create a satisfying and intellectually stimulating environment for both students and staff, in both scholarship and research.
- Establish and maintain friendly, interactive and efficient administrative mechanisms within the Department.

3.2 Learning Outcomes

On successful completion of the programme of study leading to the award of the Bachelor of Science of Engineering Honours Degree in the field of Electrical Engineering, students should:

- Be able to identify social and market needs that may be met by the profession of Electrical Engineering in its broad sense.
- Be able to draw up specifications to meet identified needs.
- Be able to develop and use theoretical models for the analysis and design of systems or processes required for the satisfaction of specifications, while being aware of their limitations.
- Be able to identify and use materials, tools and manufacturing processes, incorporating good engineering practices, for the implementation of systems or processes within the field of Electrical Engineering.
- Have the ability to develop managerial skills required for the management of multi-disciplinary engineering systems or processes.
- Have the ability to develop critical self-directed learning (CSDL)

4. FINDINGS OF THE REVIEW TEAM

The following eight aspects of education reviewed at the Departmental level are described in sub sections 4.1 to 4.8.

Curriculum design, content and review;

Teaching, learning and assessment methods;

Quality of students including student progress and achievements;

Extent and use of student feedback (both qualitative and quantitative);

Postgraduate studies;

Peer observations;

Skills development;

Academic guidance and counseling.

4.1 Curriculum Design, Content and Review

Good Practices in Curriculum Design, Content and Review

University of Moratuwa has changed its curriculum program from a full academic year of three terms to a program with two semesters plus a “Skills Development” term (June Term) from year 2000 onwards. [Sources: Self Evaluation Report (SER)]

Subsequent to the above, and as a result of it, the previous curriculum has been changed. Content of the past curriculum produced basically a typical electrical engineer whereas the present one has considered a much wider spectrum; taking in to consideration the planning, design, estimating, commissioning, inspection, operation & maintenance and development etc. in the same discipline. [Sources: SER, HD presentation and discussions]

Contents of most of the courses in the field of EE such as EE403, EE423, EE425 at 4th level and EE321, EE204, EE303 at 3rd level are frequently reviewed and updated to be consistent with the departmental objectives set under 3.1.4 of SER. This practice indeed will facilitate progress to employment opportunities in industry and also will be helpful for undergraduates who are looking forward for further study. [Sources: SR and Discussions with HD of DEE]

The Curriculum is reviewed, in consultation with an “Industry Liaison Committee” formed by the department two to three times a year consisting of experts from the industry and the academics of the other universities. *The most recent such committee was formed about six months prior to the QA visit.* [Sources: Self Evaluation Report, Presentation by the HD of DEE, and Discussions with academic staff]

Major revision to the program modules is done once in 5 years [presentation by the HD]

DEE has implemented its own monitoring procedure to monitor the performances of first two sets of graduates under the new semester/curriculum system (2000-2004) & (2001-2005). DEE is at the stage of receiving the feed back of the said scheme. It is understood from the DEE staff that once the receipt of the feedback is completed, a change to the existing curriculum could be considered to be implemented, if necessary. [Sources: SER and Discussions]

Incorporation of industrial visits once a year to give students an exposure to the real world of work; is also observed to be a good practice. [Source: Student sample work of the subject review report file].

Review process: recent examples a) 2004/05 rearranging core, elective & optional subjects b) 2005/06 revision of laboratory work & evaluation methods c) 2006/07 Introduction of streams under consideration [DEE, HD presentation]

4.2 Teaching, Learning and Assessment Methods

Good Practices about Teaching and Learning

The student workload is observed to be reasonable especially in the first year (10-12 credits) owing to the sudden change in learning environment from school to the university (and medium of instruction from vernacular to English). By allowing the workload to be partly controlled by the student in the rest of the semesters with the consent of the academic adviser, the total workload seems to be reasonably distributed throughout the program [Sources: SER, Discussions with students and staff, DEE hand book & first year hand book]

Teaching and learning are carried out through a combination of methods such as lectures, tutorial assignments, practical classes, industrial visits, mini projects, presentations, industrial training etc. [Sources: SER, Discussions with students and staff]

DEE maintains its own website and the students have full access to the reading materials, assignments, lecture notes, past examination papers, model answers etc. for some of the EE courses. DEE is on its way for developing the same facility for the other courses. [Sources: SER, Discussions with staff]

Minutes of meeting of the department have indicated that the improvement strategies for teaching, learning and assessment methods have been frequently addressed and discussed. [Discussions with staff, MoM of monthly Departmental meetings of DEE]

Level 4 comprehensive project – is found to be a good opportunity for the application of learnt theories in the field of electrical engineering [Sources: Final year project reports, Discussions with staff]

Laboratory work as an essential part is found in most of the EE courses. DEE is in the process of introducing mini-projects both on individual and group basis depending on the nature of the courses such as power systems, power systems planning, operation etc., which gives the student much more insight in to the nature of the discipline.

Industrial training for 6 months given at level 3 is found to be an essential and important component of the program.

The module assessment method consists of continuous assessment (CA) and end-of-semester examination. By setting a criterion for each course module, taking in to consideration the weight of its components such as labs, tutorials, assignments etc. to get the eligibility for sit for the end-of-semester exam, the students are continuously monitored right throughout the semester. [Sources: Performance criterion file, Discussions with staff]

Students are allowed to appeal for re-correction. [Source: Discussions with staff]

The review team witnessed the availability of Internet facilities for students. This facility is expected to enhance student's self-learning abilities. However, since the available computer terminals are limited, students face hardship and inconvenience due to this.

Appointment of the external examiner for each module is as per the university guide lines (appointed by the senate, on the recommendation of the faculty board and the department) and found acceptable.

Things needing attention:

The review team indicated that DEE should consider acquiring world wide established software, which have since been acquired.

The laboratory space may be insufficient to carry out practical classes for large groups of students. DEE should pay attention to inform students about experiment arrangements in advance and minimize time lost for photocopying instruction sheets and other supporting documents from the time allocated for experiments and canceling experiments due to lack of demonstrators etc.

The students indicated interest in receiving the corrected coursework reports back.

On the basis of its observations, the review team (on majority agreement) considers that overall teaching, learning, and assessment aspects are good.

4.3 Quality of Students, Including Student Progress and Achievements

Student enrollment for the Faculty of Engineering of the University of Moratuwa is highly competitive and normally falls among the top three competitive programs in University education. Out of the four Engineering Faculties in Sri Lanka, University of Moratuwa is the preferred choice of students in the merit list. Once entered in to the engineering stream, selection for the Electrical Engineering field is again among the top most three competitive fields available at UOM. [Source: Appendix B in the SER report]

The statistics shown in the SER provided by the DEE (table given under 5.1) is obviously the outcome of such an exceptional intake. Forty-eight out of forty nine have graduated with First classes, upper second and lower second class passes in the first batch (2000 intake) since the introduction of the new curriculum and this performance is remarkable.

DEE also has participated in presenting projects related to the field of EE in the Institute of Electrical Engineers Young Members section in 2003 and 2004 and also has won the Manamperi Memorial Award in year 2005, 1999 and 1998.

The employment record provided in Appendix D in SER report is consistent with section 3.1.2 given in subject review report and is commendable.

Hence, the progress achieved during the past five years (2001-2005) by the EED is satisfactory and the students have the potential to benefit from the program with a very high success rate for employment (84% - 98%)

Considering all the above the review team judged this aspect as good.

4.4 The Extent and Use of Student Feedback

The DEE has developed a set of questionnaires; to get the student feedback with regard to the lecturer performance and also about the content of the course module at semester intervals. Qualitative student feedback is obtained by informal discussions between students and level coordinators and Informal discussions between students and academic advisors.

The response received from the students is processed and analyzed by the department in various ways both quantitatively and qualitatively is used to adjust the performance accordingly for the next semester and so on.

Student feedback is received by the DEE through the following ways:

Through the batch representatives

Through the standard questionnaire forms once a semester

Through the EE society (consists of department alumni, students and staff)

Through the student union representative (at the faculty board meeting once a month)

It was also gathered from the batch representatives that the EED is one of the most student-friendly departments in the university.

Therefore the environmental set-up with respect to the extent of how to receive/analyze/improve student feed back in the DEE of UOM can be rated as good.

4.5 Postgraduate Studies

At present, the DEE conducts PG taught courses and postgraduate research degrees as specified in page 22 of the SER. These are the Master of Philosophy Programme, the Master of Science Programme and the PG Diploma/ M. Eng, M.Sc. programme.

The Department conducts a Master of Philosophy programme for suitably qualified graduates. This may be undertaken either on a full-time basis or on a part-time basis. Candidates wishing to register for a Ph D programme are initially required to register either for a M Phil programme or for an unspecified research degree. They will be registered for a Ph D programme only on successfully demonstrating their research capabilities, usually over the period of one year. Some recent M Phil research projects are given in Appendix F.

The Department also awards a M Sc Degree by research, which may be of either one or two years duration. A list of recent M Sc projects is also given in Appendix F of the SER.

The Department conducts a part-time Post Graduate Diploma Programme in Electrical Engineering, conducted over an academic year, on Fridays and Saturdays. Those who attain the required standard in this programme may continue towards either an M Eng or an M Sc degree, by undertaking a supervised research project, normally lasting over one year (part-time). A list of recent projects is given in Appendix F in the SER.

A new, more specific PG Diploma / M Sc programme is under development and will be announced within 2006.

The students select a research topic suggested by a staff member or select an industry related problem at their place of employment. An internal supervisor and an industrial co-supervisor

guide the student. A dissertation is submitted at the end of the research project and a viva voce examination is held. The assessment committee will comprise internal & external examiners. Students who are successful in both components are awarded a M. Sc. or M. Eng. Degree. PG Diploma is awarded to those who pass only the written examinations based on the first year taught courses.

The division of PG studies headed by the Director, PG studies of UoM handles administration duties of PG degrees. Introduction of new PG courses or subjects, admission of students, assessments, examinations, appointment of examiners and moderators and other matters related to PG studies, originating from the DEE are approved by the Faculty Higher Degrees Committee (HDC) chaired by the Director PGS, Faculty and the UoM Senate. Entry qualifications of the PG students are governed by the University By-Laws. Division of PG studies stipulates guidelines to research students and supervisors.

PG taught courses are coordinated by two academic staff members in the respective department, course coordinator and the research coordinator, for the specified course. The Research coordinator of the DEE, who is the member of the HDC representing the Department, monitors research degrees.

The review team got the feedback from the research students. They are happy to be students here, and look forward to be guided by a capable panel of teachers. Some PG students who work as RAs have to serve 12 hours per week as Instructors in the DEE. The PG students would prefer if more opportunities are given to them to showcase their abilities to the industry.

Only complaints were regarding the lack of space, lack of Internet facilities and about not having access to labs 24 hours, for their research work. The PG room is considered not very good by the students and the review team conveyed this feedback to the academic staff, while encouraging the students to redesign the PG room themselves with some advice from the architects who are in the same building. Some students expressed concern about the poor sanitary facilities, especially the maintenance of the available facilities. These problems were discussed with the staff and some solutions were promised immediately, while others are to be addressed soon.

Hence, this aspect can be considered good.

4.6 Peer Observation

Since of late the DEE of UOM did not have any peer evaluation. However, during the recent past in late 2005, DEE has decided to implement its own peer evaluation method and it is currently in progress.

According to SER, The DEE does not, as yet, have a formal system of peer observation, even though all academic staff may audit each other's courses. The Virtual Classroom experiment allows the inclusion of additional teachers with most of the rights and privileges of the course teacher.

All the academic staff members of the Department meet once a month at a Department Meeting usually held on the second Thursday of each month. Both academic and administrative matters are discussed at this meeting.

Most of the senior academic staff of the Department meets regularly at lunch everyday, thus providing an informal forum for the discussion of all important academic matters. This developed into an established institution within the Department to its great advantage.

Considering the above and the measures that will be implemented in near future, the review team is of the opinion that this aspect is satisfactory.

4.7. Skills Development

According to the SER, The students in the DEE are expected to be able to identify and use materials, tools and manufacturing processes, incorporating good engineering practices, for the implementation of systems or processes within the field of Electrical Engineering.

Teaching / learning of both general and specialized skills required for the practice of engineering is accomplished through two different processes. One is the use of formal courses where particular skills (for example Traditional engineering skills, Communication and presentation skills and computer skills) are introduced to the student, and the other is where these skills are further developed through the entire curriculum by way of projects etc. within other modules. The latter is considered to be particularly important for the proper assimilation of these skills.

Some examples of projects undertaken by students in the recent past under the skills development programme are given in Appendix G of the SER.

Considering the above, the review team judges this aspect as good.

4.8. Academic Guidance and Counseling

As given in the SER and as explained in the meeting with academic counselors, all students who are selected for admission to the B.Sc. Engineering Honours Programme in Electrical Engineering at the end of level 1 should consult the Department's Academic Adviser and seek his/her advice on the selection of modules for registration for a particular semester or term.

The Academic Advisor takes a number of factors into consideration in advising each student. S/he gives attention to balance the academic load of each student, also being aware of the carrying capacity of each module. A student's programme as a whole has to have certain coherence and ensure the gradual and orderly development of the student over his/ her undergraduate career. As was repeatedly emphasized in the SER, each students needs may be different, depending on his/her future career aspirations, among other matters. It may not be possible to balance all these factors, but the Academic Advisor is in the best position to attempt it.

5. CONCLUSIONS

Curriculum Design, Content and Review: The Faculty Curriculum Development Committee had revised the curriculum every 4 years since 1990. Past students' views were also taken into account in the curriculum review. The last curriculum review was done in 2004. Review team is satisfied with the development shown in this aspect. Judgment: Good

Teaching, Learning and Assessment Methods: A number of teaching methods are used and the courses are taught mainly by lectures, practicals, discussions etc. Assessment of all the courses has been done uniformly throughout the Faculty. To further improve the teaching and learning process it is recommended that better computer and laboratory facilities are provided. Judgment: Good

Quality of Students, Including Student Progress and Achievements: Students with a good performance at the GCE advance level apply for this course. The review team noted that the performance of students during the program show improvement. Almost all the students have successfully completed the degree, and a majority of them obtained classes at their first attempt. Judgment: Good

Extent and use of Student Feedback, Qualitative and Quantitative: The teacher evaluation by students is implemented on a regular basis at present. When the curriculum have been revised, feedbacks from the immediately passed out graduates, undergraduates and the industry were given due consideration. It can be concluded that the students' feed back has been effectively used in the Department. Judgment: Good

Postgraduate Studies:

At present, the DEE conducts PG taught courses and postgraduate research degrees as specified in page 22 of the SER. These are the Master of Philosophy Programme, the Master of Science Programme and the PG Diploma/ M. Eng, M.Sc. programme. The details of the programme were given in section 4.5 and the views of the teachers and Pg students were obtained. Judgment: Good

Peer Observation: There is effective peer observation as elaborated in section 4.6. Judgment: Satisfactory

Skills Development: Students are given opportunities to develop their skills in areas such as presentation, computer and personal skills as elaborated in section 4.7. It is recommended that the computer facilities available to the students be enhanced if means can be found. Judgment: Good

Academic Guidance and Counseling: Several senior student counselors who are academic staff members conduct routine programs at the faculty level on Counseling. In addition, there are other facilities made available as shown in section 4.8. An academic staff member to whom a student is assigned acts as the advisor, who meets the student routinely and assist him in solving academic problems s/he faces. Provision of the services of a Full Time Professional Counselor through the University is a great step forward. Judgment: Good

Based on the observations made during the visit by the review team, the eight aspects were judged as follows:

Aspect Reviewed	Judgment Given
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	Good
Postgraduate studies	Good
Peer observations	Satisfactory
Skills development	Good
Academic guidance and counseling	Good

6. RECOMMENDATIONS

Based on the findings indicated above the review team wish to make the following specific recommendations.

In most of the aspects the review team found the way things are done at the DEE are commendable. While sharing the lack of funds and other problems inherent to all the Sri Lankan universities, the high moral and positive attitude of the staff should be commended.

To further improve teaching and learning process it is recommended that better computer and laboratory facilities are provided.

ANNEX-1

Agenda of the 3 day visit

Time	Activity
Monday (6/02/2006)	
9.00 – 9.30 a.m.	Welcome Meeting with the Dean and Head of Department
9.30 – 10.00 a.m.	Discuss the Agenda of the Review
10.00 – 10.30 a.m.	Tea Break
10.30 – 11.30 a.m.	Department Presentation on the Self Evaluation Report
11.30 – 12.30 p.m.	Discussion
12.30 – 1.30 p.m.	Lunch Break
1.30 – 2.30 p.m.	Meeting with Department Academic Staff
2.30 – 3.30 p.m.	Observe Teaching a Class 1
3.30 – 5.30 p.m.	Observe Teaching a Practical Class 1,2
5.30 – 6.00 p.m.	Brief meeting of Reviewers
Tuesday (7/02/2006)	
9.00 – 10.00 a.m.	Observation Department Facilities
10.00 – 11.00 a.m.	Observe Documents (Working Tea)
11.00 – 12.00 a.m.	Meeting with Technical Staff and other Non- Academic Staff
12.00 – 12.30 p.m.	Meeting with Students
12.30 – 1.30 p.m.	Lunch Break
1.30 – 2.30 p.m.	Observe Teaching a Class 2
2.30 – 4.00 p.m.	Observe Teaching a Practical Class 3,4
4.00 – 5.00 p.m.	Meeting with Postgraduate students
5.00 – 6.00 p.m.	Brief meeting of Reviewers
Wednesday (8/02/2006)	
9.00 – 10.00 a.m.	Observing Other Facilities (Library, Computer labs, Farms Etc.,)
10.00 – 10.30 a.m.	Academic Guidance and Counseling Core Aspect Meeting
10.30 – 11.00 a.m.	Reviews Private Discussion (Working tea)
11.00 – 12.00 noon	Meeting with Head & Staff for Reporting
12.00 – 1.00 p.m.	Lunch Break
1.00 – 5.00 p.m.	Report Writing

Annex 2 - Persons met during the visit

Academic Staff

Prof. A.K.W. Jayawardene, Dean, Engineering.
Prof. H.Y. Ranjit Perera, Head, DEE
Prof. J.R. Lucas
Dr. W.D.A.S. Wijayapala
Mr. B. Bernard Perera
Dr. Asanka Rodrigo
Dr. N.C. Ekneligoda
Dr. O.M.K.K. Nanayakkara
Dr. M. Liyanage
Ms. J.R.U.P. Jayatunga
Dr. Lanka Udawatte
Mrs. L.P.J.P. Premaratne
Dr. Sisil Kumarawadu
Dr. Nishantha Nanayakkara
Dr. J.P. Karunadasa
Dr. N. Wickramarachchi
Prof. P. Wijayatunga
Mr. Nihal Wanigatunga – Senior Student counselor

Non-Academic Staff

Mr. Y. Dayananda
Mr. P.A.N. Shantha
Mr. H.D.A. Chandana
Mr. B.G. Dayaratne
Mr. D.M.C. Alwis
Mr. J.C.P. Wickramaratne
Ms. M.A. Nyanie
Mr. K.D. Lionel
Mr. S.P. Silva
Mr. L. W. Ariyadasa
Mr. Pradeep Niroshan Soyza
Mr. S.R.P. Silva
Mr. J.D. Leelasiri
Mr. K.A.D.S. Somasiri
Mr. H.A.P. de Silva
Mr. S.R. Sanjeewa Udayanga
Mr. M.W. Dehin Wasantha

Postgraduate Students

Mr. P.A.N. Shantha
Mr. W.D. Prasad
Mr. S.K. Ranatunga
Mr. S.D.G.L. Jayatilaka
Mr. L.N.S. Perera
Ms. I.T. Dharmadasa
Ms. Upuli Jayatunaga
Also 34 undergraduates of the DEE took part in the discussion with the QA team.

ANNEX -3

List of Teaching Sessions Observed

6th February 2006

Lecture (EE 426 – Energy Studies, Level 4 Semester 2, Dr. L. Udawatte)
Practical (EE 427 – High Voltage Laboratory)
Practicals (EE 425 – Machine Laboratory)
Practical (EE 322 – Department Computer Lab)

7th February, 2006

Lecture (EE 322 – Control Theory, Level 4 Semester 2, Dr. S.P. Kumarawadu)
Lecture (EE 429 – Power Systems Planning. & Operations, Level 4 Semester 2, Dr. L. Udawatte)

ANNEX-4**List of Facilities Observed**

Lecture Theatres
Laboratories (High Voltage Lab, Power Electronics Lab, Machine Lab, Power Systems Lab, Electrical Measurements Lab, Departmental Computer Lab & Electrical Installation lab, Research lab for PG students)
Office Space and Staff Rooms
University Library and Computer Center
Department mini library
Bookstores and Photocopy Facilities
Canteen Facilities
University Gym and Physical Education Unit
Industrial Training Unit

ANNEX-5**List of Documents Observed**

Performance criterion for B.Sc. Engineering degree program
University corporate plan, Calendar for B.Sc. Engineering Undergraduate students
Details of Faculty Subcommittees
Detailed Syllabi of the Course Units conducted by the Department for four levels
Minutes of the Departmental Meetings and the Minutes of the Curriculum Development Committee Meetings
Past Question Papers, Marking Schemes, Final Year Students' Project Reports, Students' Practical Record Books
Teaching Material (lecture notes and practical handouts)
Summaries of the Teacher Evaluations by the Students and the Related Forms
Summaries of the surveys conducted by the Department
Research Papers and Other Publications by the Academic Staff Members of the Department
CD on the Department of Electrical Engineering
CD on Innovations UOM 2005 Exhibition
Curriculum Development & Evaluation Committee reports
Teaching learning and assessment method file
Industry consultative board meeting minutes.