PROGRAMME REVIEW REPORT

FACULTY OF INFORMATION TECHNOLOGY

UNIVERSITY OF MORATUWA

29th to 31st January 2008

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CONTENTS

1. PROGRAMME REVIEW PROCESS

Subject/Program review process of the University Grants Commission (UGC) involves evaluating the quality of education within a specific subject or discipline, focusing on the student learning experience and on student achievement. This subject/program 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.

Program review process at the Faculty of Information Technology (FIT) of the University of Moratuwa was conducted following the guidelines provided in the Quality Assurance Handbook for Sri Lankan Universities, published by the Committee of Vice Chancellors and Directors (CVCD) and UGC in July 2002. The quality of education was reviewed according to the aims and learning outcomes given in the Self-Evaluation Report (SER) of the FIT, which was made available to review team 2 weeks prior to the review.

The following eight aspects of education were reviewed at the Faculty 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 counselling.

The review team visited the Faculty for three days, namely 29th, 30th and 31st January 2008. 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 Vice Chancellor, Dean of the Faculty of Information Technology, Heads of the three Departments of the Faculty, members of the academic and non-academic staff, groups of undergraduate and postgraduate students.
- Peer observation of the teaching process
- Observing the facilities at the Faculty and
- Examining the documents provided by the Faculty (see Annex 2 for the list).

At the end of the 3rd day of the visit, an opportunity was given to the Faculty Academic staff to respond to various clarifications the review team requested.

Each of the eight aspects was judged as good/satisfactory/unsatisfactory, noting the strengths, good practices and weaknesses in each.

The review report is organized as follows: After presenting a brief history of the University of Moratuwa and the Faculty of Information Technology in section 2, the section 3 presents the aims and the expected learning outcomes of the Faculty of Information Technology as given in their SER. The findings of the review team on each aspect are presented in section 4. The judgments on each of the eight aspects are presented in section 5. The report finally provides some recommendations to improve the quality of the programme.

2. BRIEF HISTORY OF THE UNIVERSITY AND FACULTY

The unprecedented explosion of Information and Communication Technology globally has resulted in a widening gap between the supply of IT professionals and the available positions in the industry leading to a significant shortage of manpower. In the Sri Lankan context too, this shortage of manpower has resulted in restricting the growth of the IT industry. It was principally to address this issue at the national level that the Faculty of Information Technology, the first ever faculty of this kind in the state university system of Sri Lanka, was established in June 2001, with an initial intake of 50 students in January 2002.

The flagship course of the Faculty of Information Technology is the Honours Degree of the Bachelor of Science in Information Technology [B.Sc. (IT) Hons.]. A student has the option of obtaining the Bachelor of Science in Information Technology [B.Sc. (IT)] degree at the end of six academic semesters or to continue on to the Honours degree for a further two academic semesters. Both courses include an industrial training period of an additional 24 weeks. The intake to this course was increased to 100 in 2005.

The Faculty also offers a Postgraduate Diploma / M. Sc. in Information Technology, as well as postgraduate research degree programmes leading to MPhil and PhD degrees. A number of professional development programmes including Postgraduate Diploma in IT for Educators, a Graduate Training Programme (GTP) and IT for Vocational Trainers are also offered by the Faculty.

In September 2007, the Faculty launched the first ever external degree programme of the University of Moratuwa, the Bachelor of Information Technology (BIT). This programme is offered in the Open and Distance Learning (ODL) mode.

The Faculty also plans to commence M.Sc. / P.G. Diploma programmes in Artificial Intelligence and in Advanced Information Technology in the near future.

The Vision for the Future

After six years of existence, the Faculty is now poised to expand its academic and research activities to cater for a wide range of IT requirements both at the national and international level. In line with the vision and the mission of the University of Moratuwa, the aim of these activities will be to position the Faculty as a centre of excellence in IT with national relevance and international recognition.

The Faculty also envisages more active participation in government initiatives for IT-related policy development and implementation as well as in providing consultancy services for the private and public sector organisations, thereby further strengthening its position as a centre of excellence.

Faculty Structure and Operation

a) Academic Departments

The Faculty consists of three academic departments:

- Department of Information Technology
- Department of Computational Mathematics
- Department of Interdisciplinary Studies

The Departments collectively offer course modules for the B.Sc. (IT) and B.Sc. (IT) Hons. Degree programmes. The responsibility of conducting each course module is assigned to the relevant Department.

The thrust of the Department of Information Technology is to instil the subject knowledge and understanding in the students through the courses it conducts. The aim of the Department of Computational Mathematics is the development of intellectual and analytical abilities required of the graduate to take up the evolving challenges in the IT field. The Department of Interdisciplinary Studies has been set up with the objective of providing the necessary personal and soft skills, as well as to provide a broader perspective to the graduate through non-IT courses. In addition, all departments are actively involved in the initial preparation of the students entering the Faculty for the course.

b) Management of the Faculty

The main academic and administrative body of the Faculty is the Faculty Board, which meets once a month. Two subcommittees of the Faculty Board, the Faculty Academic Committee (FAC) for undergraduate studies and the Higher Degrees Committee (HDC) for postgraduate studies, are responsible for making recommendations to the Faculty Board regarding day-to-day matters as well as those related to programme enhancement. The Faculty Board consists of the academic staff of the Faculty, three representatives from Industry and two student representatives.

The FAC is headed by the Director, Undergraduate Studies and the HDC by the Director, Postgraduate Studies. The Faculty Quality Assurance Cell (FQAC) concerns itself with the quality aspects of the Faculty's academic programmes. Industrial training is managed by the Industrial Training Committee.

The Assistant Registrar (AR) of the Faculty assists the Dean of the Faculty in the administrative matters pertaining to the Faculty. The AR convenes monthly meetings of the Faculty such as the Faculty Board, the Academic Staff Meeting, the Staff / Student Liaison Meeting, and the Faculty Academic Committee Meeting.. Other major responsibilities of the AR are facilitating academic activities by ensuring operational and logistical support in lecture halls and computer laboratory arrangement and liaising with other divisions on administrative matters pertaining to the Faculty.

3. AIMS AND LEARNING OUTCOMES

3.1 Aims

The aims of the B.Sc (IT) and the B.Sc. (IT) Hons. degree programmes are:

- To instil in the students, knowledge of the relevant concepts and applications to enable them to keep up with the in the fast evolving area of Information and Communication Technologies (ICTs).
- To inculcate in the students, soft skills and correct attitudes necessary to be competitive among a diverse community of ICT professionals.
- To develop in the students, the intellectual capacity and skills for research and advancement of knowledge in ICT.

In order to achieve the above, the faculty aims to provide the students with;

- A 3-year degree to cater for today's demand for IT professionals from the ever changing IT industry and other sectors requiring the power of IT.
- A 4-year degree to pursue studies in identified specific areas to cater for the demand for higher level IT professionals and for further studies at postgraduate level.
- A high quality learning environment to produce IT professionals with national relevance and international recognition.
- Opportunities to gain knowledge from a wide range of modern IT courses that are structured into a semester system to ensure continuous development in learning.
- Guidance to conduct independent study assignments to develop skills to work independently and to organize and present information in a professional manner.
- Opportunities to formulate and conduct group projects to develop the ability to apply knowledge gained in technical and project management aspects to practice, to work in teams and to produce related project documentation in a professional manner.
- Industrial training to expose students to the environment within which the learned knowledge is applied, to the functioning of an organization and related work ethics and to recognize new trends.
- A mentoring programme to help students prepare for life after graduation.
- Opportunities to excel and be recognized at competitions
- Opportunities to understand and practice the concepts of social responsibility through community work.
- Encouragement to experience and benefit from new educational strategies such as Problem-Based Learning (PBL) and e-Learning.
- Opportunities to participate in ongoing industry-based as well as research-oriented projects in the Faculty and the University.
- Opportunities to learn from a range of non-technical courses for personal development as well as to develop soft skills, and gain knowledge in a wide range of application areas for IT.

3.2 Learning Outcomes

On successful completion of the degree programmes, students should be able to;

- Function as internationally recognized IT professionals with an ability to engage in the profession with a national relevance.
- Apply knowledge, skills and correct attitudes to ensure their advancement as IT professionals within the ever changing, highly competitive socio-economic conditions worldwide.
- Comprehend IT needs of different sectors, and formulate IT strategic solutions accordingly, thereby contributing to the growth of the national economy.
- Pursue higher studies in IT and allied technological areas conduct research and development in IT and strengthen the academia for development of the IT education sector of the country.
- Contribute to national development and social harmony as good citizens with the use of analytical and critical thinking, and the soft skills acquired through the programme.

4. FINDINGS OF THE REVIEW TEAM

4.1 Curriculum Design, Content and Review

The faculty has designed two degree programs with a clear understanding to the requirements of industry, profession, research & development and the academia in the IT field. The 3-year degree program is developed to cater for the demand for IT professionals in the IT industry and other sectors requiring power of IT, while the 4-year degree program is developed to provide IT education in specialized areas to cater for the demand for higher level IT professionals and for further studies at postgraduate level.

The curriculum in each of the four years covers a wide range of technical and non-technical subject modules in alignment with the ACM/IEEE CS/IT recommendations, thus attempting to make the graduate a 'well rounded' person. While the Faculty identifies itself as primarily catering to the IT domain, and the degree programs developed with 'vocational' specializations being offered in areas ranging from networking specialist to software engineer and ICT manager, the subject coverage also includes a sizable selection of theoretical computing topics such as automata theory, theory of computability and complexity and natural language processing. This is undoubtedly useful in order to promote the research awareness of the students and for the future of the Faculty academics (Ref AS.1.2).

However, there is some more space to streamline the subjects offered and make the overall structure more coherent, while cutting down on extraneous topics. For example, in Level II, the subjects Network Programming (IT2302), Internetworking (IT2303) and Socket programming (IT2304) seems to have much in common. Similarly, in Level IV, Parallel Processing (IT4207) and High performance Computing (IT4208) connotes a similarity. It would also be worthwhile to introduce an industry oriented advanced programming course in Semester 5 to supplement the skills of students before their industrial placement.

A positive aspect of the curriculum is that subjects that had to be core have been defined so (e.g., in Level 3, Professional practice, Independent Study, etc. have been made compulsory) while optional units are identified as such. The course structure being a 3+1, with an exit point at the end of the 3rd year (3 ½ years to be precise, with the 6 month industrial placement) has ensured that the 3 –year graduate is equipped with almost all knowledge that he or she would be required to have in the industry. This is a positive aspect too. Subject categorization into specialization streams at the 4th level may both benefit and do otherwise for the student: it may motivate them towards industry opportunities available but on the other hand, could move away from the broad mindset expected in a basic degree.

The introduction of compulsory non-technical subjects to the curriculum is a very positive aspect. However, it would be preferable that those that are in some way relevant to the IT vocation and are being evaluated on written paper at the end of Semester, be GPA contributing. For example, Accountancy, Business Studies and Business Law could have been made GPA contributing. The external BIT degree conducted by the Faculty, has an Accountancy module in Level I, which is GPA contributing.

The review team also noted that the degree program contained number of course modules with non-integer credit weight, e.g. 2.5 credits. As it has been the experience of many programs that such non-integer credit weights tend to increase the students' workload, the review team recommends the FIT to consider changing them to integer credit weight at the next revision.

Enhancement of student skills

It is a notable and a positive fact that there are student projects in each of the Levels of study, intended to enhance group and individual skills of the student (Ref AS.1.2). For example, there are group projects in Level I (ICT applications: 2.5 credits), Level II (ICT design: 2.5 credits) and Level III (Final 3rd year project: 6 credits). In one of the classroom observations, a presentation of such a 2nd year project was observed and it was a pleasant surprise to see that the reports were hardbound and presented in a professional manner. There is no doubt that the students had enjoyed and were rewarded by these projects. The Level IV project which has been a group project (10 credits) until the syllabus revision in 2004 has been made an individual project (10 credits) now. This would render a good experience for those who pursue a fourth year, but the logistics of handling a large number of quality individual projects have to be borne in mind, as there is no limit to the number that can be admitted for Level IV. The student opinion has been mixed on the group or the individual nature of the project.

Industry placement (Industrial Training)

The 6-month industry placement offered between the 5th and the 6th semesters is designed to provide a real life experience of the IT industry to the students. In addition the industrial mentoring programme prior to training, which provides the opportunity to the student to interact with an industrial mentor, also prepares the student to get the best out of the training. However, the industrial training has caused the degree to extend for 4 ½ years, and is a point of consternation to some students.

Curriculum review

The Faculty has undertaken to review the syllabi of the IT course in a regular manner (Ref AS.1), starting with the initial curriculum development in September 2002, followed by the 2004 revision and the May 2007 amendments. Such periodic review is a positive aspect provided time is given to stabilize.

4.2 Teaching, Learning and Assessment Methods

Conduct of Courses

The observations made have convinced the panel that appropriate pedagogical approaches are followed in the lectures and practical work. The use of audio-visual equipment, pacing of lectures and the handouts are good indicators. With the Faculty's long-term commitment to open and distance learning, the inclusion of Learning Management System (LMS) based modes in every subject is encouraging. The practice of Problem Based Learning (PBL) for one of the course modules is welcomed (Ref AS.2.3). The promotion of group work in classroom as was seen in the MIS course, discussing past question papers, is also a notable aspect.

Independent Study

The independent study is primarily a literature review which has been a course unit in Level IV that has been moved to Level III (Ref AS.2.1.6). Promoting independent working and research skills is thus recognized in both the 3 and the 4-year courses. This is a positive aspect. It is suggested that the number of credits for this unit be increased from the present value of 2. In future measures need to be taken to detect plagiarism which is common in such an exercise.

Examinations

The quality of examination papers is good, with appropriate structures available to measure student knowledge and skills. Moderation is primarily internal with a moderation form going along with the paper (Ref AS.2.7). We strongly suggest that at least for Level IV examinations, external moderators be used. This would in effect be another form of peer evaluation that would enhance the standing and the quality of the degree course.

Projects

The quality of group project documentation is good (Ref AS.2.1). It indicates that supervisors have done their part well. Provision of student handbooks, for example, in managing the project with guidelines for proposal writing, interim report submission, final report and presentation is commendable. Another notable aspect is the accompanying student record book for regular meetings with the supervisors.

Attendance Criterion

The semester-based system has its pros and cons like any other system. Learning can be made more enjoyable if some flexibility can be afforded without leaving space for misuse. In this regard, the 80% strict attendance rule should be reviewed. Perhaps the percentage could be lowered. Across universities it has been observed that students are more stressed out as a result of the semester based system, with lack of motivation for extracurricular activities.

4.3 Quality of Students including Student Progress and Achievements

Quality of Students at Entry Level

The faculty receives students for the IT degree program from both A/L physical science and biological science streams, and the quality of students entering the faculty belong to the reasonably upper ranking (based on z-score) of the respective district. However, the FIT has not still managed to attract students who are otherwise can enter the engineering, medical or dental faculties, which are still the first choices of the students of science stream.

There is also a wide range in the quality (measured according to the z-score) of the students entering FIT from different district. On the other hand the final selection to the FIT is based on an aptitude test for the applicants, and this has provide an opportunity to the Faculty to select the 'best' students from the applicants, based on other skills such as creativity, analytical ability, and other talents those in most cases are not directly visible just in A/L performances. Therefore, this examination is important to understand students' abilities and capabilities required to complete their education in FIT successfully. (See AS.3.3).

It is also noted that the students enter the FIT from all the districts (except on some occasions) in the country, and they represent different ethnic and socioeconomic communities. This also means there is diversity in various skills, knowledge levels, attitudes and exposure, and poses challenges to the FIT not only in developing and equalizing various skills and knowledge levels but also in maintaining social harmony. We notice that the Faculty has very few staff members who can communicate in Tamil language to facilitate such process.

Today, the IT is not a field limited to science stream and worldwide and locally many IT degree programs are available for non-science students. FIT being a leading faculty in IT, should also try to develop their programs to cater for the non-science stream students too.

As the quality of students is important to conduct a high quality IT degree program, the reviewers feel more active role must be played by the FIT to make aware the prospective students about the IT degree program to attract high quality students.

Progression and Completion

The pass rates record shows very good pass rates in all the three batches that have graduated so far. For honours degree it is nearly 99% pass rate on the average in the first attempt, while for 3-year degree average pass rate at the first attempt is about 85%. Completion rate is excellent for honours degree, while for 3-year degree it more than satisfactory. In honours degree, about 16% of students on the average obtained 1st classes while for 3- year degree it only 4%. For 3 -year degree 32% obtained classes while for honours degree 96 % of the students obtained classes.

Although the overall and average performance of the three batches are of very good standards, during the discussions with the students the review panel got the impression that there are some students who face difficulties with the program, especially considering the diverse backgrounds they are entering the Faculty. The review panel is in the opinion that it is better to have a strong continuous student performance monitoring system. This is not a difficult task as the faculty already has the academic advisor for each student and that can be used effectively. This will not only help the faculty to facilitate the students who need help to develop themselves, but also to recognize the students with various potentials.

Achievements

During the review, it has also been noticed some achievements of FIT students at different events (in AS.3.5, AS.3.6 and AS.3.7). Students' achievements are also considered as indirect indication of the quality academic and other extracurricular services that they are receiving. Following are some of possibilities that could be considered within the study programmes and even outside to be achieved by its participants.

- Within the faculty programme
  - Classes, outstanding performances (Dean's list), etc
  - Scholarships, etc
- Within the University
  - Inter faculty academic/extracurricular activities
  - Scholarships, etc
- Outside the university
  - Employment records for graduated students
  - Awards in IT competitions

4.4 Extent and Use of Student Feedback

The Faculty has used three different ways to obtain feedback from students regarding the academic program conducted by the Faculty. The team is in the opinion that the Faculty has taken a genuine attempt to obtain the feedback and also to take appropriate action on the issues raised wherever possible.

Listed below are the different ways in which the Faculty obtained the students' feedback.

1. Monthly staff, students liaison meetings within the faculty

    - Minutes of these meetings since December 2006 were found. Some of the issues raised in these meetings have been taken as case studies and the actions taken regarding these issues are also documented by the faculty.

    - The annual timetable for meetings of 2008 was also available.

    - It was noticed that these meetings have served as a qualitative feedback system where the students have discussed issues that were directly related to teaching and learning and that were of general nature.

2. Student suggestion boxes

    - Student suggestions boxes were found in lecture halls where they could insert their anonymous comments. The review team noted that only a very few such comments were collected and filed (out of the four boxes, 2 comments from box 1 and 1 comment from box 3).

    - It was noted that this feedback method is a replacement for the student complain book which was practiced earlier as indicated in the self-evaluation report.

    - It was not clear how these feedbacks are taken into account and solved. The faculty commented that the issues in these feedbacks, if reasonable, are already addressed.

3. Student feedback form

    - Student feedback forms have been used as the main feedback mechanism for evaluating the teaching –learning process within the faculty. The team noted a student feedback form that evolved over the years.

    - Evidences found for these forms being collected during the middle and at the end of the semesters by the subject administrators and processed by the AR office staff. The team also noted that the anonymity of the students was maintained by not even showing their handwriting to the teachers involved (only the office staff looks at the original feedback form and a summarized version is produced and given to the lecturers. The originals are kept in a sealed envelope at the AR office).

    - The processing involved summarizing the structured feedbacks and re-producing the written part (comments) of the feedback. The summary was tabulated and a graph was also produced. The processed information is returned to the teachers concerned for necessary action.

    - The discussions with the students confirmed that at least a portion of the feedbacks given by the students was taken into consideration in the following semesters. It was the opinion of the students that the faculty is open minded in receiving their feedback and has often accommodated the feedback given by them. Couple of examples, according to students are:
        i. A lecturer who was rated low for a subject was removed from that subject next time

ii. Another lecturer who was conducting the class fast earlier has informed the students that he/she will go slow as he/she got to know of this from the student feedback.

- The discussions with the students also revealed that some of the feedbacks from the students are not addressed. The faculty addressed this issue by saying that the students expect changes very quickly, which has lot of constraints in implementation. However, they are trying to address all possible issues within these constraints.

- The team noted that a minimum of 3 points was expected from student feedbacks when a lecturer is to be considered for the University award for Teaching Excellence. The team understood that this will be a vital motivation for the teachers to collect and use student feedbacks.

- The team noted that a reasonable amount of time is spent on processing the student feedback forms. This time could be reduced if it could be automated. The LMS system the Faculty uses has a module to get student feedback and also the results could be processed. Being an IT faculty, it could be used instead of the paper based feedback forms.

4.5 Postgraduate Studies

Postgraduate Programs

In spite of the fact that FIT is a very young faculty in Sri Lankan state university system, it has recognized and has already commenced different postgraduate study programmes to cater internal and external demands for postgraduate studies. There is a postgraduate study programme based on taught courses leading to M.Sc. in IT (Ref. AS.5.1 and AS.5.5), having an intermediate exit option for students with a postgraduate diploma demanding 32 coursework credits (for a M.Sc., students have to complete a project-work equal to 16 additional credits). Also FIT has provided opportunity to commence reading for M.Phil or Ph.D. degrees at any time during the academic year for students seeking for research level postgraduate qualifications. These M.Phil and Ph.D. degrees could also be used as means to develop and train the existing junior staff at the faculty.

It has been noticed that there is a considerable demand for PG programs based on taught courses mainly from industry practitioners, even though the attraction to follow research type postgraduate courses is low at present (Ref. AS.5.3 and meeting with postgraduate students). On the other hand the panel also noticed that the completion rate of postgraduate courses is not satisfactory. This is mainly due to the fact that most of the students are employed in the industry and find difficulties in completing especially the thesis component. This is a problem today in almost all the postgraduate courses conducted in the university system. However faculty may work out flexibilities and alternative requirements in order to get increased successful completion rates in these postgraduate study programmes. At the discussion with the PG students it was indicated by some that the group project for the MSc thesis may be more appropriate than an individual project while some maintain the otherwise. Considering the fact that the IT industry work more in the spirit of team work, but also to make provision for those who prefer individual projects, it is better if the flexibility could be given to the students to select a group or individual project.

Research Programs

Although not many staff with postgraduate research training is available in the FIT, some staff members continue to contribute to research and to supervise postgraduate and undergraduate level research project, which have also led to many scientific publications.

Even for a young faculty like FIT, it is very important to give much consideration to developing research environment within its future development agenda. The review panel thinks this could be achieved by developing several aspects related to research activities of an institute. However, it has also been noted that some work in these directions has already been started by FIT.

4.6 Peer Observation

The University of Moratuwa has recognized the need of peer evaluation in the academic process and has developed the necessary policy framework to implement it. It has also conducted a workshop on Peer review with the assistance of the QAAC to make awareness in the academic staff.

The Faculty QA cell has laid down the necessary guidelines for the peer review process and a review form has been developed

The Faculty conducts the peer review for each staff member (both internal and visiting) in each semester.

The University has introduced the peer review to the point scheme to consider for the award for teaching excellence, and has thus motivated the staff to practice peer evaluation.

The review panel is in the opinion that the faculty has not recognized the moderation process as a form of peer evaluation. It is recommended that the moderation be taken as a mechanism for peer evaluation.

4.7 Skills Development

The faculty has designed the curriculum, giving importance to the development of interdisciplinary subject knowledge, intellectual and analytical, technical, investigative soft and transferable skills while providing industry exposure through an industry internship and career mentoring.

The faculty has incorporated 16 different non-technical courses covering broad spectrum of domains such as proposal writing, accounting, physical fitness, meditation and aspects of building construction. During the meeting with the students, it was noted that these course units are well accepted by the students and they have realized the importance of learning those non-technical subjects. In addition to class room teaching activities, the students are also provided with an opportunity to practice communication skills via documentation of project and assignment work and as well as making presentations.

The students are provided with an orientation programme preparing them for the university career. It was noted by the students that, exposure to the societies during the orientation programme could be further improved by providing more details on all the possible areas of extracurricular activities and highlighting the importance of each.

It is commendable that the faculty has developed a well-monitored and organized industry internship programme by obtaining the feedback from the industry. The programme provides

the students with opportunities to develop their practical and communication skills while being exposed to industry. This is further enhanced through the career-mentoring programme which has been well designed with an industry network and AIESEC.

The Faculty encourages the students to participate in extracurricular activities such as national and international ICT related competitions and sports. Despite the fact that the faculty is relatively new, its students' achievements in sports, national and international ICT competitions such as *Microsoft Imagine Cup* are commendable. However, there is no evidence that the faculty monitors students' participation in extracurricular activities such as sports and their progress in academic activities. Students felt that there is a need for formalizing a mechanism in recognizing the contribution made to sports in counting the student attendance in academic activities.

4.8 Academic Guidance and Counselling

The Faculty provides academic guidance through academic staff and counselling through university's senior student counsellors and a professional counsellor. The students are assigned with an academic advisor for necessary assistance. The faculty has established a mechanism of monitoring student contact with the academic advisor. However, it was noted that some of the students have minimal or no contact with the assigned academic advisor. The students sometimes seem to seek help from their senior students and discuss the issues they may have relating to the choices. The Faculty also has a Director/ Undergraduate Studies who can assist and guide the students on various academic issues. Separate two units for career guidance and student counselling are available near the library building.

There is also support available from a professional counsellor and a medical centre for the students that may need assistance. It was noted that some students are directed to professional counsellor via the University Medical Officer. There was no evidence to say the services offered by the senior student counsellor are monitored with the number of students taking part in such sessions. However, there was evidence that the professional counsellor monitors the number of students from IT faculty obtaining such services.

The counselling programmes may need improvement in building a close relationship with the students and monitoring the effectiveness of the academic counselling programme. Perhaps this may be carried out by collecting feedback on this aspect and making necessary continuous improvement to the process of academic advice and counselling activities. It may also be useful to track the progress of individual students who obtain counselling services both academic and general. It was also noted the need for providing the training to the staff on academic counselling.

5. CONCLUSIONS

The Review Team wishes to summarize the observations on the eight aspects under review as follows.

1. Curriculum Design, Content and Review

Strengths/Good Practices:

Well balanced curriculum, with theory, practical aspects, industrial training and skills development; Introduction of non-technical subjects; Regular revision of curriculum.

Weaknesses:
Overlapping of content in some subjects; 4 ½ year duration for special degree; Non-integer credit weights for course modules.

2. Teaching, Learning and Assessment Methods

Strengths/Good Practices:
Appropriate pedagogical approaches are used; Learning Management system for all subjects; Problem based learning introduced; Independent study component and projects which are well managed and supervised.

Weaknesses:
Strict attendance regulations have de-motivated the students.

3. Quality of students, including student progress and Achievements.

Strengths/Good Practices:
Aptitude tests for selecting the students; Very good pass rates at the first attempt and very good completion rates; Very high employability of graduates.

Weaknesses:
Still unable to attract the upper ranks of the A/L science stream students; Not admitting students from non-science streams; Not monitoring the progress of the individual students.

4. Extent and use of student Feedback, qualitative and Quantitative

Strengths/Good Practices:
Monthly staff – student liaison meetings, student suggestion box and student feedback form are used to obtain the feedback; Outcome of students feedback form used for the award of teaching excellence; Attempts to accommodate the comments and suggestion given in the feedback.

Weaknesses:
Not using the online student feedback module available in the LMS to reduce the enormous amount of work performed by the staff in processing the paper based feedback forms.

5. Postgraduate Studies

Strengths/Good Practices:
PG Diploma/MSc in IT is offered. Research based PG degrees (MPhil) are offered; Active in research and many publications despite the lack of staff.

Weaknesses:
Research environment needs to be build; Pass rates and the completion rates are poor.

6. Peer Evaluation

Strengths/Good Practices:
University has a policy frame work for peer review and peer review is practiced; Considered for the award of teaching excellence

Weaknesses: Moderation has not been taken as a form of peer evaluation.

7. Skills Development

Strengths/Good Practices:
Curriculum is designed to provide skills development; Non GPA courses, independent studies, projects industrial training and carrier monitoring are used to develop the skills.

Weaknesses: Lack of monitoring mechanism on individual student's skills development.

8. Academic Guidance and Counselling

Strengths/ Good Practices:
An academic advisor is assigned to each student; Director, Undergraduate Studies is established to assist and guide students on some issues; Formal mechanism in the university for providing counselling.

Weaknesses:
Academic advisor system is still not very effective; Staffs need formal training on academic counselling.

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

Aspect Reviewed	Judgement Given
1. Curriculum Design, Content and Review	Good
2. Teaching, Learning and Assessment Methods	Good
3. Quality of students, including student progress and Achievements	Good
4. Extent and use of student Feedback, qualitative and Quantitative	Good
5. Postgraduate Studies	Good
6. Peer Evaluation	Good
7. Skills Development	Good
8. Academic Guidance and Counselling	Good

The overall judgment is suspended

7. ANNEXES

Annex 1. AGENDA FOR THE REVIEW VISIT

Day 1: Tuesday, 29th January 2008		**Venue/ Person in charge**
8.30 – 9.00	Private meeting of review panel with QAA council representatives	VC's Board Room
9.00 – 9.30	Discuss the agenda for the visit	VC's Board Room
9.30 – 10.30	Meeting(s) with Vice Chancellor/Chairman internal QA Unit/Dean/Heads of Departments/ Head, Faculty QA cell etc. (Working Tea)	VC's Board Room
10.30 – 11.30	Department presentation on Self Evaluation Report	VC's Board Room
11.30 – 12.30	Discussion	VC's Board Room
12.30 – 13.30	Lunch	Lodge
13.30 – 14.00	Observing practical session	IT1103 (Wireless Lab, Ms. Upeksha Ganegoda)
14.00 – 15.00	Observing Departmental facilities	Temporary building, Library
15.00 – 16.00	Meeting with Academic Staff	VC's Board Room
16.00 – 17.00	Meeting with undergraduate students	VC's Board Room
17.00 – 18.00	Meeting with postgraduate students	VC's Board Room
Day 2: Wednesday, 30th January 2008		
9.00- 9.30	Observing practical session	IT2401 (Wireless Lab, Ms. Subha Fernando)
9.30 – 10.00	Observing teaching	IT 1801 (Pink building clsrm 1, Ms. Udayanthi Weerasuriya)
10.00 – 11.00	Observing Documents (working tea)	VC's Board Room
11.00 – 11.30	Observing teaching	IT 418 (Level 4 Lab, Prof. Gihan Dias)
11.30 – 12.00	Observing teaching	IT2105(Pink building clsrm 2, Ms. Indika Karunarathna)
12.00 – 13.00	Lunch	Lodge
13.00 – 13.30	Observing other facilities	New Building
13.30 – 14.00	Observing teaching	IT 2401 (Pink building Room 2, Ms. Subha Fernando)
14.00 – 15.00	Meeting with Technical Staff and Other Non Academic Staff	VC's boardroom
15.00 – 15.30	Observing other facilities	Sumanadasa (IT Technical Room, Physical Education Division)
15. 30 – 16.30 16.00 – 16.30	Meeting with special degree students Observing practical session	VC's boardroom IT2105 (Pink building rm 2, Ms. Indika Karunarathna)
16.30 – 17.00	Meeting of Reviewers	VC's boardroom

Day 3: Thursday 31st January 2008		
9.00 – 9.30	Observing students' presentations	IT 2999 (Pink Building Room 2, Ms. Subha Fernando)
9.30 – 10.30	Meeting student counselors/academic advisors/personal tutors	VC's Boardroom
10.30 – 11.00	Reviewers private discussion	VC's Boardroom
11.00 – 12.00	Meeting with staff for reporting	VC's Boardroom
12.00 – 1.00	Lunch	Lodge
13.00 – 17.00	Report writing	VC's Boardroom

Annex 2. LIST OF DOCUMENTS OBSERVED

AS.0 General

- AS.0.1 AC Academic Staff Meeting Minutes
- AS.0.2 FAQC (Faculty Quality Assurance Cell) Meeting Minutes
- AS.0.3 FB (Faculty Board) Meeting Minutes
- AS.0.4 Senate Memos
- AS.0.5 BIT Curriculum
- AS.0.6 Training Program and Short Courses
- AS.0.7 FICB (Faculty Industry Consultative Board) Meeting Minutes
- AS.0.8 News and Events
- AS.0.9 Faculty News Letter
- AS.0.10 Annual Report
- AS.0.11 Bylaws
- AS.0.12 Corporate Plan
- AS.0.13 B.Sc Student Handbook
- AS.0.14 National IT Work Force Survey 2007
- AS.0.15 Academic Calendars
- AS.0.16 Faculty Events – Photographs
- AS.0.17 Publications by Staff

AS. 1 Curriculum Design, Content and Review

- AS.1.1 Reference Documents for 2004 Syllabus Revision
- AS.1.2 B.Sc IT Curriculum
- AS.1.3 Documentations for Curriculum Update - 2007 (IT Dept)
- AS.1.4 Documentations for Curriculum Update - 2007 (CM Dept)
- AS.1.5 Documentations for Curriculum Update - 2007 (IDS Dept)
- AS.1.6 By-laws and Performance Criteria

AS. 2 Teaching, Learning and Assessments methods

- AS.2.1 Reports
  - AS.2.1.1 Project Reports -Level 04 - IT 499
  - AS.2.1.2 Project Reports- Level 03 - IT 313

AS.2.1.3 Project Reports -Level 02 - IT 2999
AS.2.1.4 Project Reports -Level 01 - IT 1999
AS.2.1.5 Independent Study Reports - Level 04 - IT 402
AS.2.1.6 Independent Study Reports - Level 03 - IT 3902

AS. 2.2 Past Papers
AS. 2.2 .1 Past Papers - Level 01
AS. 2.2 .2 Past Papers - Level 02
AS. 2.2 .3 Past Papers - Level 03
AS. 2.2 .4 Past Papers - Level 04
AS. 2.2 .5 Past Papers - Non Technical Subjects

AS.2.3 Problem Based Learning
AS.2.4 Course Documentation
AS.2.4.1 Course Documentation (Data Structures and Algorithm - IT 1103)
AS.2.4.2 Course Documentation (Software Engineering - IT 2104)
AS.2.4.3 Course Documentation (Probability and Statistics IT 3704)
AS.2.4.4 Course Documentation (Intelligent Systems IT406)

AS.2.5 Examination Time Tables
AS.2.6 List of Examiners and Moderators
AS.2.7 Moderation Forms - (CM)
AS.2.8 Semester Time Tabling
AS.2.9 Student Attendance Summaries
AS.2.10 Examination Procedures

AS. 3 Quality of Students including Student Progress and Achievements
AS.3.1 FAC (Faculty Academic Committee) Meeting Minutes
AS.3.2 Sample Student Performance Summery
AS.3.3 Documentation and Analysis of Aptitude Test.
AS.3.4 Student Employment Records
AS.3.5 Student's Achievements
AS.3.6 Student Participation of Sports
AS.3.7 Dean's List Achievements
AS.3.8 Faculty Handbook
AS.3.9 UGC Handbook

AS. 4 The Extent and Use of Student Feedback, Qualitative and Quantitative
AS.4.1 Student Feedback
AS.4.1.1 Student Feedback Records - Level 01
AS.4.1.2 Student Feedback Records - Level 02
AS.4.1.3 Student Feedback Records - Level 03
AS.4.1.4 Student Feedback Records - Level 04

AS.4.2 Administered Student Evaluation Forms

AS.4.2.1 Administered Student Evaluation Forms - Level 01 (Actual IT1001)
AS.4.2.2 Administered Student Evaluation Forms - Level 02 (Actual IT2204)
AS.4.2.3 Administered Student Evaluation Forms - Level 03 (Actual IT3106)
AS.4.2.4 Administered Student Evaluation Forms - Level 04 (Actual IT406)
AS.4.2.5 Staff- Student Liaison Committee Meeting Minutes (Faculty)
AS.4.2.6 University Officers, Staff- Student Unions Liaison Committee Meeting Minutes
AS.4.2.7 Case Studies of Issues by Students and the Actions Taken to Address Them
AS.4.2.8 Student's Suggestions and Complaints

AS. 5 Postgraduate Studies
- AS.5.1 Student Handbook - (Postgraduate - M.Sc in IT)
- AS.5.2 Application Procedures - Postgraduate Research Degrees
- AS.5.3 Postgraduate Research Student Files
- AS.5.4 Departmental Discussion on Research Methodologies
- AS.5.5 Curriculum - PGDip/M.Sc in IT
- AS.5.6 Curriculum - M.Sc in Artificial Intelligence
- AS.5.7 Curriculum - M.Sc in Advanced IT
- AS.5.8 Faculty Higher Degree Meeting Minutes
- AS.5.9 Publications by Postgraduate Students

AS. 6 Peer Observations
- AS.6.1 Peer Review
- AS.6.2 Workshop on Peer Observation and Student Feedback

AS. 7 Skills Development
- AS.7.1 Documentation of Industrial Training
- AS.7.2 Carrier Mentoring Program
- AS.7.3 Orientation Program
- AS.7.4 Knowledge Enhancement Program
- AS.7.5 Curriculum - Non-Technical Subjects

AS. 8 Academic Guidance and Counseling
- AS.8.1 List of Academic Advisors
- AS.8.2 Student Contact Information Files
- AS.8.3 Professional Counselling Records - 2007