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ΑΝΩΤΑΤΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

HELLENIC REPUBLIC

H.Q.A.A.

HELLENIC QUALITY ASSURANCE AGENCY
FOR HIGHER EDUCATION

EXTERNAL EVALUATION REPORT

DEPARTMENT OF APPLIED INFORMATICS AND MULTIMEDIA
TECHNOLOGICAL EDUCATION INSTITUTE OF CRETE

May 2011

External Evaluation Committee

The Committee responsible for the External Evaluation of the Department of Applied Informatics and Multimedia of the Technical Education Institution of Crete consisted of the following four (4) expert evaluators drawn from the Registry constituted by the HQAA in accordance with Law 3374/2005:

1. Professor George Spanoudakis   (Chair)

   City University London, United Kingdom

2. Professor Nik Bessis   (Member)

   University of Derby & University of Bedfordshire, United Kingdom

3. Dr Christos Politis   (Member)

   Reader, Kingston University London, United Kingdom

4. Mr Manolis Stratakis   (Member)

   R&D Department, Forthnet SA, Greece

Introduction

The external evaluation committee (EEC) met from the 8th to the 14th of May 2011 to conduct the external assessment of the Department of Applied Informatics and Multimedia of the Technological Educational Institute (TEI) of Crete, referred to as "Department" and "Institution" respectively in the following.

EEC was briefed by ADIP (Hellenic Quality Assurance Agency) in the morning of the 9th of May 2011. In the afternoon of the same day, EEC met at the Campus of the Institution under evaluation, and had a short meeting with the President of the Institution and a delegation including its Vice Presidents and the Head of the Department. On the 11th of May 2011 and prior to the departure from the Institution, a preliminary presentation of the findings was given to a group of delegates of the Institution including its President, the Head of the Department and the OMEA committee.

The visit to the Institution involved meetings with the following executive and academic faculty members of the Institution:
- President (Prof. Evangelos Kapetanakis);
- Vice-President (Prof. Vassilis Zacharopoulos);
- Head of the Local Quality Assurance Committee and Vice-President (Prof. Constantinos Savvakis);
- Head of the Department (Prof. Athanasios Malamos);

It also involved meetings with:
- the members of academic staff of the Department who were responsible for the internal assessment report (OMEA);
- members of permanent academic staff;
- non-permanent academic staff;
- the three division leaders of the Department;
- Heads of research groups;
- lab assistants;
- technical support staff;
- students (from different years of study);
- alumni; and
- administration staff.

Prior to arrival at the institute, ADIP provided to the EEC an electronic version of the 2007-2008 internal evaluation report prepared as dictated by ADIP and the identity form of the Department.

On arrival, the EEC was also given copies of:
- an appendix to the internal evaluation report covering the period 2008-10;
- an appendix to the internal evaluation report covering the period 2010-11;
- the programme of undergraduate studies and a report on the international aspects of undergraduate studies;
- the guide for project dissertations ("diplomatikes"), project proposal lists, proposal forms, project extension forms, project assessment committee appointment forms, project evaluation reports, project submission notification forms and project abstracts;

- the guide for industrial placements, industrial placement approval forms, industrial placement log books, industrial placement completion forms, and contact details of organisations hosting industrial placement students;
- samples of exam papers and coursework briefs;
- samples of marking schemes;
- samples of exam and coursework scripts, and dissertations;
- samples of module grades including coursework, exams and dissertations;
- samples of textbooks and other learning resources (e.g., lecture notes);
- the course syllabus and specifications;
- samples of publications by members of the Department;
- data from internal budgets report of the Institution; and
- leaflets and prospectuses for research groups.

The EEC visited the following facilities of the Institution:
- lecture theatres;
- research laboratories;
- undergraduate and research student laboratories;
- academic staff and administration offices;
- mobile research units (electromagnetic measurements and compatibility van);
- IT facilities and the computer centre;
- the library;
- childcare facilities for staff;
- student and staff refectories;
- the gymnasium; and
- video conferencing facilities for distance learning/teaching.

The EEC had the chance to observe lab and lecture sessions and was given access to the virtual learning environment used by the Department (eClass).

The EEC is aware that perhaps some of the proposals/suggestions may not meet the existing institutional and legal framework in Greece.

A. Curriculum
To be filled separately for each undergraduate, graduate and doctoral programme.

APPROACH

The Department offers a four-year undergraduate programme. The undergraduate programme includes general content and specialised modules. A total of 39 modules and a project dissertation (counting as one module) must be completed for the award of the degree. These modules can be selected from a set of 30 compulsory modules and 18 optional modules that are offered every year (the optional modules on offer vary across years). The modules are distributed across the two departmental divisions:
- Applied Informatics
- Multimedia and Telecommunications

The level of studies is comparable with international standards and appears to meet the needs of industry and information society at large. The Department supports the continuous improvement of the programme of studies, the preparation of students for the "real" world, the continuous updating of curriculum in line with the rapidly changing technological environment and advances and the familiarisation of students with research methods and processes. The objectives are decided through continuous discussion in informal groups and division and departmental meetings.

The curriculum is broadly in line with the stated aims and objectives of the Department as given in the statute (Φ.Ε.Κ.). Procedures for the revision of the curriculum are set out in the statute, governing the operation of the Department based on subject area informal group meetings that feed into division and departmental meetings. These include efforts for the horizontal and vertical integration of modules within the programme of studies as well as for aligning the provision with requirements related to the employability and professional development of students. Although there is evidence of some monitoring of the curriculum between major revisions, it seems that the inflexible framework governing changes of the curriculum does not allow for more agility in the fine tuning of the curriculum. The undergraduate programme is due to be revised next year (2012).

Infrastructure appears to be on par with the infrastructure of peer institutes and at times better (e.g., advanced labs have excellent equipment and infrastructure). The Department does extensive use of the web-page course management software for distribution of course related information (syllabus, class-notes and announcements via eClass). The students seem to use the system extensively.

IMPLEMENTATION

Similarly to internationally practice, the structure of the curriculum makes use of 'compulsory prerequisites', 'compulsory choice' and optional modules to guide students through the programme of study and provide some flexibility.

There is some evidence of vertical integration between compulsory prerequisites modules but there is also some overlap. There is also evidence of horizontal integration between modules and opportunities of setting subjects in the context of each other, exploiting synergies between course modules to make useful integrative learning

outcomes. Additionally, the dissertation and industrial placement modules provide a further opportunity for an integration of theoretical knowledge, experimental tools, techniques and methodologies dependent on the selected subject. This is also the main conduit for preparation and familiarisation of students for research. There is evidence of coordination of course material between tutors teaching course modules within the same prerequisites "chains".

Overall, the curriculum aims to cover subjects in the thematic areas of Applied Informatics, Multimedia and Telecommunication systems. The curriculum contains a significant amount of practical and/or experimental work and the students are exposed to many "real" life technical problems. Also, the dissertation provides additional opportunities to students to specialise in a selected technical subject.

The specification of course modules has been performed in a clear and concise way, with the Learning Outcomes (LO) for each module and indicative content clearly identified. However, LOs of modules are not clearly mapped to the LOs of the offered programme.

The permanent staff ability to implement and deliver the curriculum is evident, but there is a high degree of reliance on non-permanent academic staff for the coordination of some of the modules which is a cause of concern. Teaching space and staff accommodation space is inadequate for the delivery of the curriculum to the given number of students.

The programme of studies strives to provide in breadth and depth across the field of informatics, multimedia and communications and to integrate the theory and practice as standard policy. Although the currently implemented curriculum is deemed by the committee adequate, further improvements are possible. The limited available human resources mainly, in terms of permanent academic staff (fourteen), applies constraints and stretches the Department's ability to implement the current curriculum. EEC understands that the current institutional structure imposes a rather stringent set of curriculum specifications on the Department.

The overall work load of the current curriculum is rather high. There is a number of factors contributing to this issue: First, the number of modules that the students need to take appears to be rather high. This often puts high demands on the freshers, as they progress through their course. Second, the educational background in mathematics and informatics of the incoming students is diverse and it ranges from students having a solid foundation in the above topics to students having no or weak foundation. As a result, a considerable percentage of students find it extremely challenging to follow the material, especially in mathematics, despite of the introduction of seminars to support students with weak maths backgrounds by the Department.

There is a number of infrastructure and staff requirements to effectively implement the curriculum. At present the Department has fourteen full time permanent academic members (five professors, one associate professor, five assistant professors and three lecturers), which is considered highly insufficient.

The academics of the Department are well qualified with doctorates to teach all

modules and to work towards meeting the goals and objectives of the programmes. Furthermore, the culture in the Department is dynamic and collegiate, fostering collaboration among members of the two divisions.

The implementation of the programmes is supported by laboratories, computer software, IT infrastructure and library facilities. The present rate of students' attendance is high in laboratories (since this is compulsory) but quite low in classes that are theory based.

At the same time it is important to bear in mind that an essential ambition of the programme is to prepare students for their professional life and in doing so enhance considerably their employability and skills.

RESULTS

The curriculum implementation broadly realises the stated aims and objectives of the Department. The aim of familiarising students for research can only be limited as no postgraduate or doctoral study is possible and it is achieved partially through the dissertation and their industrial placement.

The key issues and challenges identified in the design and operation of the curriculum can be summarised as following:
- Lack of control over student entry is a challenge, especially as students have different backgrounds on entry, especially in terms of mathematical ability.
- Long mean completion time for students, low pass rates in modules and low attendance to lectures are issues of concern.

IMPROVEMENT

The Department attempts to improve the quality of curriculum through internal reviews of its academic staff. This effort however is inhibited by the dependence of the Department on external regulatory frameworks that define the form of the revision processes. EEC supports this observation. A new review is due next year (2012). There is a need for strengthening the input to this process by seeking advice from other stakeholders, namely industry and alumni, in addition to inputs from academic staff, students and Central Administration. As part of this process the Department should consider consolidating the curriculum by investigating the possibility to provide a smaller number of modules. EEC suggests the provision of further support for mathematics and/or reconsideration of the expected level of student achievement in this area.

A key initiative for the Department is the production of a postgraduate programme of study. It is expected that this would complement the existing provision and enrich the current undergraduate studies.

B. Teaching

APPROACH:

The Department provides a wide range of teaching, learning and assessment strategies that are appropriate to an undergraduate level of an international standard.

The Department sees teaching methods as participative in approach and, wherever possible, real-world and research-based case studies are used. A team and collegiate approach is also evident. Given the rapid development of technologies supporting teaching and learning, staff and students demonstrate a blended learning and teaching approach through the extensive use of eClass. For example, EEC observed the use of forums and discussions boards for these purposes.

In keeping with the nature of the course, there is evidence of strong emphasis on individual work complemented by lectures, practical exercises, demonstrations, step-by-step guides and laboratory activities. Lecture and tutorial notes, activities and guides were also available in eClass.

There is evidence of low attendance rate in lectures. The legal framework, which does not oblige students to attend, lectures maybe a significant contributor to it. EEC has also the feeling that these may contribute in a fairly low completion rate (2007/08: 40%).

EEC has observed that the complexity encompassing the number of permanent academic staff members; the increasing numbers of new students; the low completion rate and current technical infrastructure causes a 1:40 staff-student ratio. This is quite distant from a 1:20 to 1:25 ratio, which is the typical ratio in other institutions familiar to the EEC.

Unquestionably, there is a passion and commitment from both staff and students to improve the standards. During the visit both groups demonstrated a high level of co-operation which in most instances can be noted as exemplary.

The performance of the students is assessed by a variety of methods including examinations, presentations, practical coursework and reports. The final grade is determined as a weighted sum of the marks achieved by the students at the different assessment parts of a given module and across modules for the overall award grade. Dissertations are assessed by a panel of 3 members of academic staff. Dissertations are assessed for their report and program elements (65%); presentation (15%) and punctuality (20%).

Finally, there is a notable international dimension of the course. Due to several research-funded collaborations with European partners, students' benefit from guest-talks; mobility opportunities; industrial placements and support for their dissertation from external institutions.

IMPLEMENTATION

Students seem to be satisfied with the teaching procedures. However, it has been

reported to EEC that few non-permanent members of academic staff are under-committed (especially when referring to feedback provision). Some of the available teaching materials and resources are of high quality. However this is not the case across the board and some parts need updating. It is recommended that quality control procedures must be introduced to ensure uniform quality of teaching materials. The course material consists of a set of textbooks, lecture notes/handouts and suggested/required readings.

In total, eleven general-purpose, specialised and advanced laboratories exist. The Department has a policy of upgrading IT infrastructure every 3 years. This is comparable to the cycle followed by other international institutions known to the EEC. Students have also access to three state-of-the-art advanced laboratories, which are used mainly for industrial placements, dissertations and research. A library is also available to students and staff for accessing textbooks, books, reports, theses, research papers. Research related resources are accessible through electronic databases.

EEC saw evidence of a well-established and mature process encompassing several guide and support mechanisms for industrial placements. In addition, EEC saw evidence of an exemplar dissertation process including moderation. The Department uses a committee-based approach for handling these processes.

There is clear evidence of research informed teaching, since most academic staff is involved in research activities. Staff motivates students to engage with the entire spectrum of departmental activities. Research informed teaching is clearly evident when students undertake their industrial placement at the Department's advanced research laboratories and/or when undertaking their dissertations.

The Department has established excellent collaborations with several international partners since 2006. These have resulted to 77 students taking advantage of the Erasmus mobility programme and 33 students realising their industrial placement at an international institution during this period. On a similar vein, there were 75 students from international institutions who did their dissertation and 66 international students who did their industrial placement in the Department over the same period. Finally, 8 members of academic staff participated in the Erasmus mobility programme. Hence, a vibrant and international culture has been developed and grows continuously to the benefit of students and staff.

Since 2006/07, the Department uses a standard evaluation form as a means to gather feedback from staff and students about the educational provision. Although in the past student feedback was analysed and communicated back to students and staff, this practice is currently inactive. The Department should pursue this as an area for further strengthening.

RESULTS

Throughout this evaluation exercise, EEC observed a high commitment from staff and students to co-operate and provide evidence towards their effort for improvement.

The efficacy of teaching is generally good. However, students noted that there is a slight variability in receiving feedback from few non-permanent staff whilst there were cases of excellent support and feedback received from most non-permanent staff. On a

similar vein, EEC was particularly concerned with the high number of contact time undertaken by non-permanent staff. Notably around 50% of laboratory sessions are delivered by hourly paid non-permanent staff. It became evident that hourly paid non-permanent members of staff who teach for only 2 or 4 hours per week tend to be under-committed. On the contrary, permanent members of staff were fully committed.

Although some members of staff take under consideration the distribution of marks and the student' success and failure rates within individual modules; this practice is not consistently followed by the Department. Discrepancies in success and failure rates between modules are not consistently considered either. Overall, the Department has not established processes for assessing the quality of students' results. Moreover, there is evidence of a non-coherent and non-uniform approach in the preparation of marking schemes as well as the moderation of examination and coursework scripts.

It is noted that that the average graduate's award grade is consistently very low over the years (i.e. 2004/05: 6.86/10; 2005/06: 6.87/10; 2006/07: 6.63/10; 2009/10: 6.83/10). Also, the percentage of students obtaining first class awards, i.e., awards with an overall mark above 8.5/10 is extremely low (2.6%). The average completion rate between 2004/05 and up to 2007/08 academic years is also considered low (40%).

There are significant indicators of high quality educational provision, notably the high employment rate of the Department's graduates and the considerable percentage of graduates continue for postgraduate studies (24.4%). It is also worth noting that an impressive percentage of graduates find jobs relevant to their degree within less than a year of their studies completion (over 61%).

IMPROVEMENT

The Department has identified the need for improving the appointment process for non-permanent staff. EEC saw evidence of requests and subsequent approvals (May 2011) that will enable the Department to advertise appointments of non-permanent staff in subject areas as opposed to individual modules. Subject to the requested changes in this process the Department will be able to appoint fewer applicants undertaking a higher workload which in effect will increase non permanent staff commitment.

EEC notes a few areas where the Department's practices could be further strengthened. These include:
- Student and staff feedback questionnaires: It is important to analyse the results of student feedback and take appropriate actions. This is particularly useful for non-permanent members of staff who require support mechanisms for their induction into the academic community and their professional development.
- Module assessment: EEC suggests the coherent and uniform use of a marking scheme, where applicable and the use of moderation in taught modules.
- Academic tutoring: EEC suggests the strengthening of the existing personal academic tutoring system including the introduction of monitored and compulsory personal tutoring sessions.

C. Research

For each particular matter, please distinguish between under- and post-graduate level, if necessary.

APPROACH

Research is seen as a key part of the Department's strategy and activities. The Department devotes considerable effort to sustain existing research activities and develop new ones. Research is motivated by the recognition of its contribution to the professional development of the members of academic and research staff, as well as the external visibility and reputation of the Department and the Institution as a whole. The interest in research reflects also the recognition of its role in advancing the subject areas covered by the Department to the scientific community at large.

The research direction of the Department is shaped by the interests and expertise of academic staff. Research is structured into eight groups spanning across the two divisions of the Department (see *Implementation section* below). These groups become hosts to graduate students of the Department who wish to advance their studies and develop knowledge and skills at postgraduate level. Research groups employ also external researchers.

The Department has a strategy of developing cross-group collaborations and partnerships with external institutions and the industry at national and international level. This is due to recognition of the role of this activity in bidirectional transfer of knowledge and expertise, increasing funding prospects for the Department, and creating potential destinations for its students and staff.

The Department sees the formal provision of postgraduate studies as a strategic means for enhancing its research activities and, to this end, it has requested the approval of relevant M.Sc. programmes. These proposals have not been approved so far.

Currently, the Department has no formal framework for assessing its research. However, there is informal recognition of the research efforts undertaken by individual members of staff and research groups as well as the research outcomes of their activities (e.g. publications, awards of research grants).

IMPLEMENTATION

The research in the Department takes place within eight advanced research laboratories, namely the Virtual Reality and Industrial Information Systems; Interactive Software Technologies and System Engineering; Intelligent Systems; Biomedical Informatics and e-Health Technologies; Non-Ionising Radiation; Multimedia Content; Networks; and Research and Development of Telecommunication Systems Laboratory (PASIPHAE). Some of these laboratories have adequate infrastructure and equipment that has been primarily funded by European and national research grants. The state funding of these laboratories is very limited. The advanced laboratories offer opportunities for engagement in research to the students of the Department who reach the final semesters of their studies (as part of the industrial placement scheme and dissertations).

The Department has also developed several collaborations with external institutions

(see *Results* section below for further details). These collaborations offer further opportunities for engagement in research of both academic/research staff and students. In the case of academic/research staff, they provide opportunities for research visits, collaborative research, bidding for research funds, and joint supervision of PhD research students. In the case of students, they offer opportunities for involvement in international or national research projects, and pursuing research studies at PhD level. Hence, they constitute a means for addressing a key limitation that arises due to the current legal framework of the operation of TEIs, notably their inability to award PhD degrees and offer research-based education at this level.

RESULTS

EEC believes that the research results are above average, given the existing infrastructure and resources available at the departmental and institutional level, as well as the existing administrative and teaching load of the permanent academic staff of the Department.

Scientific publications
The following table gives a summary of the Department's selected publications that has been compiled from the provided internal evaluation report for 2007-08 and the supplement reports for 2008-10 and 2010-11. The full list of selected publications can be found in the internal assessment reports.

Year	Book Chapters	Journals (Refereed)	Conferences/Workshop
2003 - present	35	180	436
Year average	4.37	22.50	54.50

The above data should be seen with some caution, as there has not been a consistent way of reporting across the different assessment reports (2007-08, 2008-10, 2010-11). Nevertheless, the data seems to suggest a shift of the Department's focus from conference/workshop to journal publications and a subsequent increase of the latter. This shift is towards the right direction. It should be noted that the list of publication fora includes internationally reputable journals (e.g., IEEE Transactions on Instrumentation and Measurements).

Research projects
As documented in the available internal evaluation reports, the Department has been awarded national and international (EU-funded) research grants of a total value that exceeds 917000 Euros within 2006-11. Several academic members of staff of the Department have participated as scientific investigators in the projects funded by these grants. This is a noteworthy achievement given the increased competition for public research funding over the same period.

Research collaborations
The Department has developed several research collaborations with external institutions at national and international level. As documented in the internal evaluation report for 2007-08 and the supplementary appendices for the period 2008-11, the national external research collaborators include the universities of Thessaloniki (Aristotle), Aegean, Thessaly, Patras, and Crete. The Department has also collaborated with the Technical University of Crete, the National Technical University of Athens, the

National Research Centre "Democritus" and the Technical Education Institute of Larisa, as well as other departments within TEI of Crete. External collaborators include London Metropolitan University (UK), University of Sheffield-Hallam (UK), University of Bournemouth (UK), University of York (UK), University of Applied Sciences-VAMK (Finland), H.É.P.L. Rennequin SUALEM University of Applied Sciences (Belgium), the University of Applied Sciences - FH-Duesseldorf (Germany), and La Rochelle's University (France).

Applications of research
There is some evidence of applicability of the results of the research of members of the Department, notably the creation of the electromagnetic radiation measurements mobile unit.

Acknowledgement and visibility of research
Within the period 2008-11, members of the Department have been involved in the organisation of 12 international conferences and workshops. Two of these events are organised regularly by the Department. Also in four of these events, members of the Department have acted as chairs or co-chairs. Within the same period, there is also evidence of significant participation of members of the Department in the programme/technical/steering committees of international conferences and workshops (e.g., 24 committees in 2010-11), and participation in the capacity of reviewer in international journals, conferences, and workshops. Members of the Department have also been members of the editorial boards of 3 international journals (International Journal of Research and Reviews in Information Sciences, Parallel Processing Letters, Journal of Engineering, Science and Technology Review). A comparable activity has been reported for the period 2005-07.

The publications of the Department's members have also enjoyed an increasing number of non-self citations between 2003 and 2007 (citation data for later years were either not available or incomplete).

IMPROVEMENT

The Department has intensified its effort to obtain further research funding and data presented during the visit suggest that on average each member of academic staff submits at least one research proposal per academic year. This figure brings the Department to the forefront of its institution. Overall, it has also been clear that there is continuous effort to improve the equipment of the advanced research laboratories of the Department, and to offer opportunities for involvement in research work to undergraduate students reaching the final semesters of their studies.

The Department's performance in research would benefit from the development of a clear and structured research strategy, the identification of areas of strategic importance for research development, and the subsequent allocation of available resources to such areas. Furthermore, the establishment of a framework for assessing research performance at departmental, group (laboratory) and individual level would enable staff to focus better their efforts and achieve the full potential that seems to be available.

It is also worth noting, that there seem to be opportunities for increasing the research

income of the Department based on research-enabled consultancy work which are not fully explored at the moment or are offered on a free of charge basis (e.g., services based on the electromagnetic radiation measurements mobile unit).

D. All Other Services
For each particular matter, please distinguish between under- and post-graduate level, if necessary.

APPROACH

The Department operates under the auspices and enjoys the services of a well organised School of Applied Technology and those of the hosting TEI.

The available services support the research and teaching activities as well as other welfare and recreational activities for students and staff.

Efficient secretariat, library, refectory, childcare and excellent gym facilities are provided to all staff and students. A career services unit, an international office, the network operation center, the information management department along with the central administration complete the provision of an extensive support service set. Since 2008 the Department has extended the provision of electronic services to the students with the support of electronic student registration and electronic distribution of learning resources (e.g. Textbooks).

An academic tutor seems to have been assigned to each student. However its role is not very well defined and communicated and therefore it is clearly underused. There is no visible policy to increase the student presence in campus.

IMPLEMENTATION

The secretariat is comprised of four members of staff with various levels of experience. Evidence available from students and staff as well as face-to-face interviews suggests that secretariat services are adequate. Extensive use of IT is taking place with general announcements appearing timely in the Department's web site after approval from the Head. Despite the limited opening hours schedule (11:00-13:00) the secretariat makes sure that the reception stays open long enough until all applicants are served.

eClass is extensively used by most staff but not everyone. Course descriptions, assignments, presentations, exercises and solutions, laboratory guides and plenty of other useful material can be found online. The Department seems to be the heavier user of eClass amongst other TEI departments. Efficient communication between students and staff is also supported. However, significant improvements of functionality are necessary in order to support enhanced user-friendliness (e.g., password change feature, multiple folder selection).

Free broadband Wi-Fi is offered in and around the main STEF building but not throughout the campus. Library's facilities are considered very satisfactory by both students and staff. The campus has also a student-operated radio station.

RESULTS

Evidence from student interviews indicates that the administrative services including the secretariat have improved over the last few years and they now operate at an adequate level.

The level of IT support seems to vary across different computer labs. Labs in which equipment has been modernised through external research based funding offer state-of-the-art support (in terms of both hardware and software equipment). An inferior level of support, however, seems to be the case in other laboratories. Access to local networks and the Internet is more coherent and adequate.

Student welfare and recreational services are adequate and include newly constructed halls of residence.

IMPROVEMENTS

The Department needs to document some of the existing administrative procedures and ensure that all relevant documentation is effectively communicated to students. Expectations that students will read and understand publicised information does not seem to match reality. Making attendance to induction compulsory and associating with it some form of teaching credit, awarded after successful completion of the activity, could be an effective step in this direction. Regular reminders of administrative procedures and requirements to students can also play a key role to this, and should be channelled through the establishment of compulsory personal tutorial sessions.

The Department should also offer a common office space with at least 4-5 hot desks for use by the non-permanent members of academic staff. An email account and pigeonhole service must be offered to every member of staff.

The career service unit does a good job but the current financial crisis is expected to create challenges in this area that will probably require a more aggressive approach for identifying industrial placement opportunities.

Collaboration with social, cultural and production organizations

The Department plays an important role in the support of local SMEs, other organisations and the local community in general. Its activities are well blended with the local society.

Through a series of activities, results from its national and international research projects are disseminated and deployed into local organisations and communities throughout the region of Crete, mainly in the areas of:
- telecommunications and networking;
- virtual communities support;
- eHealth and telemedicine;
- renewable energy resources;
- meteorological and electromagnetic studies and consultancy; and
- agricultural development.

Thus, the Department's activities contribute to the development of a region, known for its innovation.

Current good practice and achievement in this area, raise expectations and require the need for measures to ensure the sustainability of current contributions.

E. Strategic Planning, Perspectives for Improvement and Dealing with Potential Inhibiting Factors

For each particular matter, please distinguish between under- and post-graduate level, if necessary.

As identified in the internal evaluation report of 2007-08, the Department has developed a strategy for academic development with targets in five areas, namely (i) educational curriculum, (ii) educational infrastructure, (iii) human resources, (iv) research, and (iv) relation to society and economy.

Within the above areas, the main identified targets include:
- the enhancement and update of the undergraduate curriculum through seminars, the transfer of research results into the curriculum, and the organisation of summer schools;
- the improvement of space and technical equipment;
- increase of external funding; and
- increase of interactions with industry.

The internal evaluation report identified also the need for annual internal reviews of the Department strategic plan and the need to establish a framework for evaluating research and administration processes and their adequacy for the overall strategy. A key element in their overall strategy is the development of postgraduate studies at Masters and PhD level.

The overall strategy does not appear to distinguish between short and long-term objectives and does not identify a concrete action plan for the achievement of the same. Also in the supplementary reports of 2008-10 and 2010-11 there is no evidence of evaluation of the effectiveness of the strategy identified in the internal evaluation report of 2007-08.

F. Final Conclusions and recommendations of the EEC

For each particular matter, please distinguish between under- and post-graduate level, if necessary.

The Department has made significant effort to develop the two key areas that it perceives important for its integrated development, namely teaching and research. In both areas there are remarkable achievements, including:
- the provision of education that meets international expectations for the reviewed level of study, ensures the employability of its graduates and equips those wishing to pursue postgraduate studies adequately; and

- a research activity of international caliber regarding commonly accepted indicators such as the number and quality of research outputs and the level of external funding.

It is also worth noting that the Department:
- has a passionate, collegiate and committed approach to its mission;
- takes a proactive approach in cross-utilising its achievements in research and teaching (e.g., use of research funds for the creation of teaching supporting laboratories); and
- has developed mature and effective processes in certain areas (e.g., industrial placements and student dissertations).

The further development of the Department will need to strengthen certain areas of the provision. These include:
- quality assurance control particularly in connection with non-permanent academic members of staff and module moderation;
- effective analysis of student feedback;
- internal communication mechanisms related to student activities; and
- improvement of student performance and completion rates.

Evidence from the visit clearly suggests the willingness of the Department to introduce changes towards effective improvement.

EEC saw written evidence of requests by the Department to be granted the right to award Masters degrees in the thematic areas of its interest. Apart from any possible restrictions arising from the legal framework about the operation of TEI, EEC believes that the Department has the infrastructure and research expertise to support the provision of postgraduate courses, and that this element should be further considered.

The Members of the Committee

TECHNOLOGICAL EDUCATIONAL INSTITUTE OF CRETE

DEPARTMENT OF APPLIED INFORMATICS & MULTIMEDIA

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