



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

**Α.ΔΙ.Π.**

ΑΡΧΗ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ  
ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ  
ΣΤΗΝ ΑΝΩΤΑΤΗ ΕΚΠΑΙΔΕΥΣΗ

HELLENIC REPUBLIC

**H.Q.A.**

HELLENIC QUALITY ASSURANCE AND  
ACCREDITATION AGENCY

## EXTERNAL EVALUATION REPORT

DEPARTMENT **Department of Civil Structures**  
UNIVERSITY /TEI **Technological Educational Institute of Piraeus**

June 2012

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### External Evaluation Committee

The Committee responsible for the External Evaluation of the **Department of Civil Structures** of the **Technological Educational Institute of Piraeus** consisted of the following five (5) expert evaluators drawn from the Registry constituted by the HQAA in accordance with Law 3374/2005:

1. **Prof. Ted Stathopoulos** (President)  
 (Title) (Name and Surname)  
Concordia University, Montreal, Canada  
 (Institution of origin)
  
2. **Dr. Symeon Christodoulou**  
 (Title) (Name and Surname)  
University of Cyprus  
 (Institution of origin)
  
3. **Dr. Jean-Louis Gallias**  
 (Title) (Name and Surname)  
University of Cergy Pontoise, France  
 (Institution of origin)
  
4. **Dr. Panagiotis Kotronis**  
 (Title) (Name and Surname)  
Ecole Central de Nantes, France  
 (Institution of origin)
  
5. **Dr. Antonis Zervos**  
 (Title) (Name and Surname)  
University of Southampton, U.K.  
 (Institution of origin)

## ***Introduction***

### ***I. External Evaluation Procedure***

The external evaluation committee (EEC) visited the site of the Department of Civil Structures, Technological Educational Institute (TEI) of Piraeus from 14<sup>th</sup> till 16<sup>th</sup> of May 2012.

In the first day of the visit, the EEC arrived before noon. After arrival, there was a meeting with the President and the Vice President of TEI Piraeus, the Director of the School of Technological Applications, the Chair of the Department of Civil Structures, and a member of the Internal Evaluation Committee. After this informative meeting and open discussion, there was a presentation by the Chair of the Department attended by the majority of the departmental staff.

The rest of the visit included:

1. group and individual meetings with staff, including faculty (EII) and teaching/research associates (ETII)
2. meetings with students and alumni of the Department
3. meetings with representatives from industry and other organizations where students and/or graduates are employed
4. visits to lab and IT suites
5. observation of teaching
6. visit of the library
7. meeting with administration staff (including secretarial services staff)
8. visit of catering facilities
9. exit meeting with the Chair of the Department and a member of the Internal Evaluation Committee

During these meetings and visits there was discussion on related topics where several members of staff were present and responded to questions by the EEC.

The EEC appreciated the hospitality of the TEI administration and the Department staff, as well as their willingness to facilitate our visit and access to premises, facilities and materials pertinent to the external evaluation process. In particular, the EEC wishes to extend its heartfelt gratitude to the Chair of the Department for her tireless commitment to accommodating our requests and facilitating the overall process.

### ***List of reports, documents and other data examined by the Committee***

There were a number of documents submitted to the EEC:

1. internal evaluation committee (IEC) report dated March 2012 and its first version dated November 2009
2. program of study for 2009-2015 and its predecessor
3. course guide

4. textbooks and other course materials
5. representative samples of the work for laboratories and classes
6. representative samples of undergraduate theses, lab reports and exam papers
7. teaching staff CVs

The EEC also visited the Department's website.

The EEC was impressed by the exemplary level of cooperation of the Chair and members of the Department.

## **II. The Internal Evaluation Procedure**

The members of the EEC found that the evaluation report prepared by the IEC was informative and reflected the current status of the Department. The objectives of the internal evaluation process were met by the Department.

## **A. Curriculum**

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

The detailed assessment below refers to the current first-cycle curriculum of 8-semester studies (4 years) leading to a degree in civil engineering technology (civil structures). Currently there are no Masters or doctoral programs offered by the Department.

### **APPROACH**

The goal of the Department's curriculum is to prepare technology engineers on building design and construction. The program evolved from the long history of the Department of Civil Structures originating from its predecessor ("*Μικρό Πολυτεχνείο*"). The curriculum is reviewed periodically. The current version of the curriculum was set in 2009 by the Department stakeholders including faculty, staff and students, in the framework of the general educational plan for Technological Educational Institutes.

The curriculum consists of a sound core of basic courses (35), a limited number of electives (4 from a list of 8) and an undergraduate thesis ("*πτυχιακή εργασία*"). The program also includes a 6-month practical training ("*πρακτική άσκηση*") taking place in civil engineering firms or other organizations relevant to the program.

The core courses provide fundamental and specific technical knowledge in architectural design and drawing, as well as in structural design of buildings. The **balanced** association of these two aspects provides a global apprehension of building design and constitutes the **uniqueness** of this curriculum in comparison to other curricula in civil engineering where the structural design of buildings is dominant. The courses also cover the fields of quality control of materials, environmental aspects of construction, urban planning and construction management consistently with the goals of the curriculum. The courses prepare students mainly for building design and to a lesser degree for building construction management. Graduates can work in various places, such as consulting offices, civil engineering departments in the public sector and in building construction firms, especially as site engineers.

### **IMPLEMENTATION**

The curriculum appears to be rational, clearly articulated, coherent, and functional. The material and duration of each course emphasize the area of practice. The recommended textbooks and classnotes for each course are generally appropriate. The delivery of notes and textbooks to students now takes place earlier than in previous years. Arrangements for the students' practical training are facilitated by a central office of the TEI.

Notwithstanding the above, the EEC has identified a number of issues that should be addressed.

There is a lack of courses preparing students on writing technical reports. The construction

management aspect is not sufficiently reinforced and additional visits to construction sites and/or technical workplaces must be introduced in the program. These would furnish students with a better understanding of and better preparation for their professional future. The contact of the students with practitioners and companies (through seminars or workshops) must also be enhanced. Geographic information systems (GIS) must also be introduced to the program, progressively. Attention should be paid to the issue of course additions, ECTS allocation and distribution of units in different courses when the curriculum is next revised.

The number of faculty staff (permanent and contract) who implement the curriculum is very low when compared with the number of students registered in the program. The ratio of students to full-time-equivalent faculty staff (FTE) is extremely high (more than 1200 registered students in 2011-2012 for 33 FTE personnel) leading to courses with over 100 students in classes and 25-40 students in some lab sessions. Given the applied lab and course content of the program, the lack of an adequate number of laboratory assistants and technicians diminishes the quality of the program.

Moreover, the ratio of permanent faculty over contract instructors is very low (about 1 over 4) and the permanent teaching staff is overbooked, with critical ramifications to any time available for research.

The aforementioned issues are totally unacceptable for the integrity/stability of an academic program. The EEC feels that this is a critical matter that needs to be addressed as soon as possible. In view of the current austerity measures in Greece, a substantial reduction of personnel has already been implemented and – possibly – further is to come. This poses a serious threat for the sound delivery of the academic program, in spite of the **extraordinary efforts** of the faculty to meet the additional teaching needs without any compensation. This is particularly true of the supervision of undergraduate theses (a total of about 120 per year). In addition, there is an unbalanced assignment of undergraduate theses supervision among faculty members.

A suggestion that could enhance the student academic experience and at the same time alleviate the heavy supervisory workload for the staff would be a possible focus of the thesis to an integrated (capstone) design project. This can be assigned to students working together in small groups on a building project, incorporating all aspects of architectural design, materials, foundation, structural design, environmental assessment, costing, construction management, as well as the legal framework.

## RESULTS

In spite of all aforementioned - recently accentuated - burdens and difficulties, the effectiveness of the curriculum is adequate. This opinion is also shared by employers of the program's graduates. This is corroborated by the graduates' ease of getting a job (prior to the current economic crisis) and the successful pursuit of civil engineering diploma and/or master degree studies.

The average time to graduation has been steadily increasing from approximately 5 years in 2004 to approximately 7 years in 2010 and apparently higher in 2011. Although changes in the length of the program can partly be blamed for this increase, the picture is alarming. This

could partly reflect, (1) the large number of students of generally lower academic standard admitted through transfers, although relevant data are not available to that level of detail; (2) a proportion of the student population being effectively part-time students. Certainly, the recent obligation of students to finish studies in 4 + 2 years will have a positive impact on the average time to graduation.

Final degree grades have on average been 6.3/10 consistently each year for at least the past 6 years, which the EEC considers low. The distribution shows a progressive shift towards lower grades, with only 3.5% of students achieving an overall mark higher than 7.0/10 in academic year 2010-11. Moreover, this trend is compounded with the impacts of the relatively recent legislation limiting the total time a student is allowed to be registered on the program (4+2 years). According to faculty, the legislation prompted large numbers of otherwise “dormant” students to return to their studies with the intention of obtaining a pass mark, lowering the grade average.

### **IMPROVEMENT**

In accordance with the self-evaluation report, the Department has made clear propositions to improve the curriculum by (1) continuous assessment of the current curriculum application; (2) stricter evaluation criteria of undergraduate theses; (3) the organization of specialized conferences for students in connection with new and innovative technical subjects, and (4) the development of external cooperation with other institutions. In addition middle-term propositions concern the evaluation of the job market, vis-à-vis marketing of their alumni, the establishment of incentives for student mobility and the recognition of students with excellent academic performance.

The EEC agrees with these propositions.

## **B. Teaching**

During its visit, the EEC had the opportunity to discuss with staff, students and graduates separately, issues relating to the teaching provision of the Department. The EEC carried out a teaching observation at the end of which an ad-hoc meeting with the students attending the class (approx. 50) was called. The EEC also had the opportunity to attend a laboratory class of the “Special Technical Drawing” course, as well as to visit the concrete lab and its staff. A meeting with alumni invited by the Department took place in a separate plenary session. Frank discussions were carried out and, within the constraints generally imposed by a plenary session, anonymity was guaranteed to all those who shared their views with us.

All the above were highly informative and the EEC appreciated the availability and openness of staff and students throughout these discussions and visits. More generally the EEC felt that there is good rapport between staff and students and considered this to be a strength of the Department’s culture.

### **APPROACH**

As articulated in the Student Handbook (“*Οδηγός Σπουδών*”), the Department aims to provide to its students theoretical and practical training for the application of scientific, technological and architectural knowledge and skills. The pedagogic policy with regard to the teaching approach and methodology aims at covering extensive content on theoretical and applied material. Meeting the particular learning needs of the students, while covering this substantial content, is challenging but is largely achieved.

The teaching methods used in the Department vary. The bulk of teaching is conducted in lectures and in lab sessions, while lecturers tend to make lecture notes available to students either in print form or electronically on the web. Textbooks are also provided to students for free; the level of these is appropriate. Nevertheless, a concern expressed by the EEC is that, in general, students attend labs in relatively large groups, which may prevent them from having a hands-on experience. Staff and students also expressed concern for the lack of sufficient equipment maintenance, which has led to either reduced or, in one extreme case, no availability of functioning equipment for a particular lab.

The examination system is largely traditional, consisting of a final exam, lab reports and, in many courses, an assessed piece of coursework. Although the system is appropriate in that it aims to examine a range of skills and to facilitate their development, students on occasion appeared confused regarding the relative weighting of different assessments of the same course. This could be resolved with clear communication of this information from the outset, as well as explicit inclusion in the documentation.

### **IMPLEMENTATION**

As aforementioned, the particularly high student/staff ratio (approximately 40:1) has a negative impact on student learning. Despite this very high student/staff ratio, however, there generally appears to be very good collaboration between students and staff. Availability

of instructors seems to be adequate. The Department's high student/staff ratio could be tackled by (1) aiming to reduce the number of students admitted each year, to guarantee that all students can reasonably be accommodated within the teaching space available, and (2) prioritising recruitment of permanent staff. Apart from improving student learning, this will also ensure continuity of course ownership and promote the long-term further development of course material. It is however recognized that it is appropriate for a proportion of instructors to be contract teaching staff, so as to promote up-to-date links with industry and practice.

In terms of teaching resources, there are particular issues with laboratory equipment maintenance and availability (see above), as well as with the provision of up-to-date computer resources (hardware and software) for teaching and design applications. Additionally, essential up-to-date technical information is unavailable (e.g. *Eurocodes*).

Timetabling seems to also be an issue. Students complained that often up to 4 hours of theoretical lectures of the same course are timetabled in one time-block, with detrimental effects to the quality of their learning.

Clear effort is made to complement traditional instructional methods with the use of information technologies in teaching, where appropriate. This is evident, among other things, from the use as a matter of policy of a web repository for lecture notes, the hands-on teaching of AutoCAD, and the use of computer graphics in the teaching of Descriptive Geometry and Technical Drawing. However, the program would benefit from the availability of specialized computer software in other areas, e.g. structural analysis and design.

Linking of research with teaching is very limited and it is mostly done through the undergraduate thesis. For instance, some of the theses are selected to be carried out through the "Urban Observatory" or the Reinforced Concrete Lab in strong collaboration with municipalities and the industry.

Even though the EEC was introduced to two incoming Erasmus students, mobility of the Department's academic staff and students is virtually non-existent.

Evaluation by the students of the teaching, the course content and the study material/resources is done regularly in the past 3 years (in printed form) and are generally good. However, students complained that occasionally teaching staff may arrive late to class missing valuable teaching time. More importantly, a single occasion was reported of a faculty member not attending classes of a particular course for a long period without any justification.

## **RESULTS**

Student levels at admissions stage vary widely, reflecting the different streams of admission. Students admitted directly through the Panhellenic Entrance Exams are generally of higher academic standard than those transferring in from other equivalent institutions.

In 2010/11, a total of 78 students were admitted to the Department through the general exams system (vs. 58 in 2009/10) and 137 were transferred (vs. 131 in 2009/2010). The trend in increasing the number of entering students was even more dramatic in the latest academic year (2011/12) during which 129 students were admitted into the Department (vs. 78 the previous year). Although transfers significantly decreased comparatively to the previous academic year, the EEC recognizes that they have been a strain both in terms of student numbers and student quality. The number of registered students is too high to accommodate in the teaching space available, even though attendance diminishes with time. Consequently, particular cases were reported in which students had to defer their registration for the following year. The EEC considers such an eventuality extremely unfortunate.

The issues pertaining to the average time to graduation and the final degree grades have been discussed in Part A of the report.

### **IMPROVEMENT**

The Department has also identified several issues that need improvement, such as (1) the low level of student attendance of the theoretical lectures; (2) the low grade average; (3) the rapid decrease in the number of faculty members, and (4) the large number of transfer students.

The Department considers, as mitigation measures, (1) the offering of targeted seminars to students on specialized topics to increase the students' skills and knowledge of contemporary practice; (2) stricter assessment criteria, especially for undergraduate theses; (3) limiting the number of transfer students; (4) accelerating the recruitment processes for vacant faculty posts.

## **C. Research**

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

### **APPROACH**

Research is undertaken by few individual members of the staff (permanent and on-contract) in areas of their scientific interest, such as reinforced concrete, finite element technology and urban planning. There is no defined research policy and research is not integrated in the curriculum. There are no clear standards for research evaluation within the Department. However, some of the theses have been used as core information for research projects.

There are no graduate programs (MSc or PhD) in the Department, with the exception of an MSc program offered in collaboration with the University of Kingston, UK.

### **IMPLEMENTATION**

The necessary academic qualifications asked of the new faculty are higher. There is some research output as an outcome of important individual efforts, little collaboration with other national universities, limited success in attracting MSc students on research subjects and sporadic support from national programs.

With very limited exceptions, the availability of laboratory or computer equipment (hardware and software) for research purposes is non-existent. Research implementation is heavily penalised owing to the heavy teaching load, the pending need of updating the labs with new equipment and legal issues concerning the role of the Technological Educational Institutes in Greece.

Individual efforts of faculty members in directing students' dissertation work towards research are appreciated by the EEC.

### **RESULTS**

Research output is limited and mainly related to the individual interests and efforts of the faculty. Most of the research done is in collaboration with researchers from other universities.

In general, though, existing equipment should be upgraded significantly (if it is to be used for research purposes), the teaching load of active-research faculty members has to be significantly reduced, and faculty members should pursue/enhance their scientific collaboration with researchers at other universities and/or research institutes.

In terms of visibility, the Urban Observatory appears to be developing a good reputation with local authorities.

### **IMPROVEMENTS**

The Department cites the availability of new research funding streams (primarily through national competitive calls) and the possibility of autonomously offering MSc-level program of studies. The Department has already applied for the creation of an MSc program on technological solutions for environmental protection. The intent is to utilize the program in attracting graduate students and supporting research activities relating to the Urban Observatory lab, which is already in operation at TEI Piraeus.

The EEC took note of the two MSc programs in ‘Structural Design and Construction Management’ and ‘Management in Construction’ offered collaboratively with Kingston University, UK, and considered quite successful.

## **D. All Other Services**

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

### **Overview**

The Department strives to offer the highest possible quality of services to both students and teaching staff, and to a great extent this is achieved but mainly through hard work and commitment by both administrative and academic staff. In general, the student body has expressed its satisfaction for the services offered to them, recognizing the current limitations and constraints faced by the Department, whilst indicating areas of improvement.

The Department has expressed its readiness to increase electronic administration, recognizing the potential benefits from such a move. Even though the Department operates a scaled-down electronic system and has been on hold for an upgrade to a more functional system, full-scale development and implementation of the new system will require institutional investments in hardware and software.

### **Organization**

The Department's administrative staff consists of 5 persons (reduced from 7 in 2009) and 1 technician (reduced from 2 in 2009), supporting 7 faculty members, 10 affiliated faculty members (linked to the Department and offering departmental courses), and roughly 40 external instructors. The student body in the 2010/11 academic year consisted of about 1200 registered students per semester.

### **Student Services**

The high number of students serviced by the Department has put a very high strain on both the Department's resources and its quality of service to its students and teaching staff. In effect, there are five secretaries responsible for processing the records of hundreds of students amidst continuous changes in academic programs and processes. In terms of student services, the Secretariat is also responsible for monitoring and implementing the changes to the Department's academic programs.

Some processes are electronic (e.g. applications for various certifications), but most processes require significant manual effort/input. For example, even though applications for certifications or for academic transcripts can be submitted electronically, the Secretariat still needs to process the forms manually and students have to go to the Department to collect the documents. Other examples of inefficient or incomplete electronic processes are: (1) the need for grade submission through the Secretariat (instead of directly by the academic staff electronically); (2) the lack of capability for targeted emailing (by class or year or advisor) through the Registrar; (3) the lack of capability for targeted or immediate announcing through the Registrar; (4) the lack of capability for hosting class-notes by class, professor or semester through integrated web platforms (e.g. 'Blackboard'); (5) the limited remote access of student-related records (such as student transcripts).

Additionally, even though registration can be done electronically, adding or dropping courses during the period for program adjustments cannot be done electronically and requires the

physical presence of students at the Secretariat. This causes significant backlogs and increased workloads for both the students and the Secretariat during the first two weeks of the semester.

The Department should improve on the efficiency of the class schedule through better management of the course hours, student groups and registrations. A system of pre-registration can be enacted (to allow for planning); or 'course slots' can be institutionalized to avoid conflicts (for example plan 1<sup>st</sup> year and 3<sup>rd</sup> year courses in the morning, 2<sup>nd</sup> and 4<sup>th</sup> year courses in the afternoon); ease the registration to courses having prerequisites (students with grades of at least 4/10 should be automatically allowed to register in the next course on a course sequence, so as to avoid being delayed by an academic year and to minimize the administrative load of case-by-case review and approval).

Finally, even though the students acknowledge that the Secretariat is generally accessible and helpful, the limited office hours during which the Secretariat is open for serving students should be extended.

### **Financial Services**

Surprisingly enough, the Department has no budget of its own, as the budget for the entire TEI is handled by the President's Office. As a result, the Secretariat has very limited workload related to financial activities. In essence, the Secretariat handles the preparation of contractual agreements with external instructors (and the related timecards) as well as a small number of expense reports or purchases (if needed).

### **Academic/Research Services**

Since the academic and research activities are limited, the Secretariat is not burdened significantly by such activities. The academic staff has, in general, expressed satisfaction with the level of provided services.

### **Travel**

Academic staff reported that their ability to travel to conferences and other professional engagements (such as the supervision of undergraduate theses) using institutional funds has been eliminated due to the significant budget cuts at the institutional level (as of 2011). Overall mobility in the immediate previous years was also limited (the EEC was informed by the administration that staff could have been funded for travel to two conferences from the regular budget, but under very special conditions).

### **Grant Management**

There is an institutional policy in place that allows charging research overhead to grants. However, the limited number of research grants and the few opportunities available to faculty members for pursuing such grants translate to low research overhead returned to the TEI (although not to the Department). Staff can request from the central administration internal funding support for purchasing lab equipment or other related items, but the decisions for spending are made by the central administration. The decision-making process for the allocation of funds is not well defined.

### **Safety**

Instances of safety issues were reported to the EEC by lab instructors. These concerns are

attributed to the large number of students in each session resulting in very high student/staff ratio (typically 40:1). A number of staff reported on the urgent need for lab-support staff hiring to secure safer working and learning conditions. The current conditions are clearly not an acceptable state of affairs, both academically and safety-wise.

### **Library**

The TEI Piraeus library is small in size but rich in content and seems to be running well. The holdings are available in an electronic catalogue; there is access to journals and free internet. Trained librarians (5) shared encouraging facts with the EEC regarding the number of students using the resources, checking out books, responding respectfully to the rules and regulations set by the library staff. A degree of informality afforded by the small size of the community is utilized to resolve issues and challenges in a friendly manner. Members of the community value this highly. The library maintains a large volume of books (5-7 copies of each textbook) and access to most field journals through the Heal-Link library consortium. The library has also a large open-space reading room for onsite studying and internet access.

Despite the quality of premises, though, the Library can be improved through: (1) a more robust and widely accessible web-based access to its catalogues; (2) remote access (through VPN); (3) wi-fi coverage throughout the library building and the campus at large; (4) variable-faction reading spaces (e.g. individual spaces, group spaces, etc).

### **Information Technology (IT)**

The TEI Piraeus website is basic and could be improved with regards to interactive aspects enabled by contemporary web platforms. It could be expanded to include ways to showcase student achievement and to invite opportunities for collaborations such as student exchanges and research, to enable direct instructor-student interaction, to facilitate hosting of coursework content, etc.

IT facilities are, in general, limited and the overall student participation in available services is on the increase. There is room for improvement in various aspects. For example, (1) wi-fi access across the entire campus is a must and should be implemented as soon as possible; (2) computer labs (hardware and software) should be upgraded (PCs are over 5 years old and specialized software is very limited); (3) the functionality of electronic student-content platforms has to be expanded; (4) the IT infrastructure should be upgraded to enable university email accounts and storage for all students; (5) VPN access should be provided so that all students can access applications, files, journals and university services remotely.

### **Student Support Services**

The EEC was informed of the operation of a Student Services Office, tasked with liaising students and the industry, with providing practical training placements and help with student employment upon graduation. However students seemed to be unaware of its services and/or rarely took advantage of them. The Department is strongly encouraged to reinforce the role of this Office and to expand it through the creation of an Alumni Office for its graduates and of a Mentoring Program between graduates and current students, so that past students can take the role of academic and career mentors for current students. Similarly, 'Career Day' events should be hosted on a regular basis so that firms can meet prospective employees and students and firms can be paired. The EEC made note of the

sense of loyalty among the Department's graduates and their appreciation for the high quality of education they received from the Department.

### **Space and Buildings**

TEI Piraeus is located on a spacious lot and the facilities are readily accessible. The campus is currently undergoing improvements (construction work on roadway/pathways), whilst a beautiful state-of-the-art new amphitheatre was recently added to the TEI's infrastructure.

However, the current state of some buildings is cause for concern. Most buildings date back several decades and their condition needs immediate attention. Very little, if any, maintenance appears to take place and the EEC was told that currently there is practically no budget for repairs.

The classroom space in some cases seems to be adequate for the number of students in class. In other cases the space is inadequate and the students are hindered in their academic efforts. For example, civil engineering labs (such as the reinforced concrete lab) operate with groups of 25 students in very limited lab space, technical drawing classes with 40 students and computer lab courses with more than 35 students (in spaces for 20). Even though some classrooms are equipped with instructional IT, other classrooms are not (thus students have problems seeing or hearing the lecture) and the lab space is severely limited.

Some old equipment has been upgraded, facilitating continued use for instructional purposes. Some laboratories though suffer from the lack of new and/or functional equipment, making their operation and efficiency for instructional and/or research activity extremely difficult and counter-productive. The costly removal of obsolete equipment is an unresolved issue. Under these conditions, with labs appearing to be in use 100% of the time, it is not clear how maintenance and upgrades can be handled.

Finally, safety and security are of some concern as well as cleanness, as evidenced in the graffiti-covered walls and reports of vandalism. The quality of public toilet facilities, even though not bad, should be improved and maintained in good condition.

### **Student Housing and Restaurant**

TEI Piraeus does not operate a dormitory on its campus. Campus dining facilities are readily available to all students on weekdays. Spacious outside sitting is also available to them. Students expressed no complaints on the quality of food available to them.

### **In general:**

Students and instructors expressed no significant complaints on the adequacy and quality of the services available to them. The Secretariat seems to be well-organized and efficient in handling the myriad of administrative issues they are tasked with, and the students and staff are generally content with the level of service provided to them. The Department recognizes the need for continuous improvement, however, the financial and other constraints they are operating under, burden their workload and efficiency.

The EEC agrees that the Secretariat is tasked with a heavy administrative burden and that

the tools available to them are inadequate. The EEC feels that there is plenty of room for improvement on a number of fronts, and that the Department can greatly benefit from the wider rollout and application of electronic administration and from the reduction of the need for contact hours between students and the Secretariat. The EEC found that many of the time-consuming tasks with which the Secretariat is burdened on a daily basis can be eliminated or significantly reduced through the use of electronic administration (e.g. student certificates, transcripts, registrations, etc.). On a bright note, the Department has indicated that an upgraded version of the electronic administration software currently in use is in the works and that once implemented several improvements in efficiency will be observed.

### **IMPROVEMENTS**

The Department has acknowledged as areas of concern and in need of improvement, the issues of (1) more extensive reduction of paperwork through electronic administration; (2) the wider use of computing in teaching; (3) the lack of funds that can be managed at the departmental level; (4) the increase of the Registrar's contact hours with students.

The Department is currently awaiting the rollout of a new institutional tool for electronic administration.

The Department should be granted its own budget to manage, allowing for short-term and long-term decisions. The EEC feels that the issues of budgeting and departmental strategic planning are very important for the future of the Department.

### **Collaboration with social, cultural and production organizations**

The EEC was made aware of the Department's strong links with professional organizations and municipalities for the placement of students (practical training) and recruitment. During the appraisal meetings the EEC met with several alumni and current employers, and was also made aware of several initiatives that the Department has undertaken in order to make its work known to the community (for example the 'Urban Observatory' lab).

### ***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.*

The EEC agrees with the goals of the Department as presented in the self-evaluation report. Furthermore, the EEC is of the opinion that:

- The quality of the academic program should be enhanced. This may be particularly difficult in the current economic climate, but the Department must place top priority on this objective.
- The curriculum should be enriched with the addition of GIS courses to be offered in association with architectural content, in response to the evolving demands of local authorities.
- Using the Institute's operating funds, a fair and adequate budget for each fiscal year should be allocated to and managed by the Department. Furthermore, the Department should explore additional sources of funding to support their research and teaching activities. These sources may include, but are not limited to, the following: (1) research collaborations with other institutions for jointly submitting proposals at the national and international level; (2) collaboration with private and public organizations on design and/or consulting contracts; (3) offering specialized training courses to practitioners; (4) strengthening links with the alumni, who should be encouraged to form their own alumni association, and (5) extending the financially successful model of the joint MSc program with Kingston University to other universities. In addition, an appropriate percentage of the revenues generated by such programs should be allocated to the budget of the Department along with the right to use the space and facilities when not utilized by these programs.
- Students should be made aware of their professional rights and responsibilities, as well as of existing opportunities for further work and/or study.
- The Department should continue its efforts in promoting their unique academic program (balanced association of architecture and structural building design), capitalizing on their differentiation from other TEI programs in the same discipline.

## ***F. Final Conclusions and recommendations of the EEC***

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

Overall, it is the EEC's view that the department functions adequately in spite of several existing resource constraints and limitations. The majority of faculty and staff are admirable for their commitment and dedication. There is a general climate of cooperation and collegiality. Specific recommendations to rectify drawbacks have been made in this report. The EEC's major recommendations follow.

### **GENERAL RECOMMENDATIONS**

The EEC strongly recommends that TEI Piraeus:

- Addresses the high student/staff ratio by: (1) prioritising recruitment of permanent staff, and/or (2) reducing the number of students admitted each year.
- Tackles the essential problem of the number of staff on short term contracts delivering the bulk of the curriculum.
- Allocates a fair and adequate budget for each fiscal year to be managed by the Department, using TEI's operating funds.

### **SPECIFIC RECOMMENDATIONS**

The EEC strongly recommends that the Department should:

- Enhance the curriculum and furnish students with a better understanding of, and better preparation for, their professional future by: (1) introducing courses concerning the writing of technical reports; (2) reinforcing construction management aspects; (3) introducing courses on GIS, and (4) refocus the thesis to consist of an integrated (capstone) design project.
- Introduce more visits to technical workplaces and industrial sites, as well as more guest lectures by experienced practicing engineers.
- Enhance the quality of the teaching environment by:
  - Adopting a centralized integrated platform (e.g. *Blackboard*) for the delivery of courses, and providing up-to-date teaching resources, including computers, software (e.g. *AutoCAD* and specialised software for structural analysis and design) and technical information (e.g. *Eurocodes*).
  - Working actively and systematically towards encouraging students to attend lectures by making them realise that lecture attendance is highly likely to improve the quality and timeliness of their studies' completion.
  - Demonstrating that all student concerns expressed in the course evaluations are addressed actively by the Department.
  - Prioritising the maintenance and replacement of laboratory and computing equipment, with a longer-term goal of operating lab and IT groups small enough to guarantee hands-on experience.
  - Clearly communicating the relative weighting of different assessments of the same course to the students and adhering to it.
  - Ensuring the delivery of theoretical lectures in no more than 2 consecutive

hours per day.

- Extend the application of information technology for electronic administration, to cover: (1) student applications/certificates; (2) registration corrections; (3) accessibility of the Secretariat's services through the internet and remote access (e.g. VPN); (4) dissemination of departmental information; (5) accessibility to library services through wi-fi and VPN access; (6) scheduling/timetabling and (7) course evaluations.
- Increase the quality of life to students on campus (address issues of maintenance, safety and hygiene of the premises).

Furthermore, the EEC recommends that the Department should:

- Pay particular attention to the issue of ECTS allocation and distribution of units in different courses when the curriculum is next revised.
- Generalize and automate the process of allowing students to take courses, a pre-requisite of which has not been passed, provided an overall mark of 4.0 or above has been achieved in the pre-requisite.
- Promote research, by acquiring additional laboratory and computing equipment, upgrading existing equipment and reducing the teaching load of faculty.
- Extend the Secretariat contact office hours to improve on the personal service to the students.
- Promote mobility of students and staff (e.g. through the *Erasmus* programme).

## The Members of the Committee

Name and Surname	Signature
1. <u>Prof. Ted Stathopoulos</u>	_____
2. <u>Dr. Symeon Christodoulou</u>	_____
3. <u>Dr. Jean-Louis Gallias</u>	_____
4. <u>Dr. Panagiotis Kotronis</u>	_____
5. <u>Dr. Antonis Zervos</u>	_____