



Committee for the Evaluation of Civil Engineering Study Programs

Technion - Israel Institute of Technology

Faculty of Civil and Environmental Engineering Studies

Evaluation Report

September 2011

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Chapter 1- Background

At its meeting on July 14, 2009, the Council for Higher Education (CHE) decided to evaluate study programs in the field of Civil Engineering during the academic year 2010 – 2011.

Following the decision of the CHE, the Minister of Education, who serves ex officio as a Chairperson of the CHE, appointed a Committee consisting of:

- **Prof. Mirosław Skibniewski**, Department of Civil & Environmental Engineering, University of Maryland, USA– Committee Chair
- **Prof. Jacob Fish**, Department of Civil Engineering and Engineering Mechanics, Columbia University, USA
- **Prof. Laurence J. Jacobs**, School of Civil & Environmental Engineering, Georgia Institute of Technology, USA
- **Prof. Gayle Mitchell**, Department of Civil Engineering, Ohio University, USA
- **Prof Jeffrey Packer**, Department of Civil Engineering, University of Toronto, Canada
- **Prof. Rodrigo Salgado**, School of Civil Engineering, Purdue University, USA.

Ms. Yael Franks - Coordinator of the Committee on behalf of the CHE.

Within the framework of its activity, the Committee was requested to:¹

1. Examine the self-evaluation reports, submitted by the institutions that provide study programs in Civil Engineering, and to conduct on-site visits at those institutions.
2. Submit to the CHE an individual report on each of the evaluated academic units and study programs, including the Committee's findings and recommendations.
3. Submit to the CHE a general report regarding the examined field of study within the Israeli system of higher education including recommendations for standards in the evaluated field of study.

The entire process was conducted in accordance with the CHE's Guidelines for Self-Evaluation (of October 2009).

¹ The Committee's letter of appointment is attached as **Appendix 1**.

* Prof. Rodrigo Salgado did not take part in the evaluation of Technion

Chapter 2-Committee Procedures

The Committee held its first meetings on March 13, 2011 during which it discussed fundamental issues concerning higher education in Israel, the quality assessment activity, as well as Civil Engineering Study programs.

In March 2011, the Committee held its first cycle of evaluation, and visited the Sami Shamoon College of Engineering and the Technion. In May 2011 the Committee conducted its second evaluation cycle, and visited Ariel University Center of Samaria and Ben-Gurion University of the Negev. During the visits, the Committee met with various stakeholders at the institutions, including management, faculty, staff, and students.

This report deals with the Faculty of **Civil and Environmental Engineering of the Technion - Israel Institute of Technology.**

The Committee's visit to the Technion took place on March 16-17, 2011.

The schedule of the visits is attached as **Appendix 2.**

The Committee thanks the management of the Technion and the Faculty of Civil and Environmental Engineering for their self-evaluation report and for their hospitality towards the Committee during its visit at the institution.

Chapter 3: Evaluation of Civil and Environmental Engineering Studies Program at Technion - Israel Institute of Technology

- *This Report relates to the situation current at the time of the visit to the institution, and does not take account of any subsequent changes. The Report records the conclusions reached by the Evaluation Committee based on the documentation provided by the institution, information gained through interviews, discussion and observation as well as other information available to the Committee.*

Background

Established in 1924, the Faculty of Civil Engineering was one of the two initial faculties to open at the Technion, with 16 students in the field of Civil Engineering. In 2002 the Technion united two of its Engineering faculties into one: the faculty of Civil Engineering and the faculty of Agricultural Engineering. The unified faculty was named The Faculty of Civil and Environmental Engineering. This is the faculty that underwent the committee's evaluation. Currently, the Faculty is divided into three academic divisions: Structural Engineering and Construction Management, Environmental, Water and Agricultural Engineering, and Transportation and Geo-Information Engineering. The Faculty consists of 1,091 students, and has approx. 50 Senior Faculty members, 17 of them holding the title of "Full Professor".

Mission and goals

Technion is a world-renowned academic institution with a very high reputation in a large variety of engineering specialties and programs. As such, the mission of Technion's Faculty of Civil and Environmental Engineering should include a stronger mandate to attract international students to study at the Faculty, both undergraduate and graduate. There is also a need to attract international world class faculty, not necessarily Hebrew speaking, to the already existing international program which was initiated at the Faculty and currently spreading to other faculties at the institution.

As the Technion has the oldest "Department of Civil Engineering" in Israel and the only one conducting programs at all levels (B.Sc M.Sc and PhD) and in many of the sub-fields of civil engineering, the committee feels that it should take advantage of this fact and take upon itself the position of leading and guiding the other institutions in Israel holding programs in this/similar field.

Recommendations:

Intermediate:

- Include a stronger mandate to attract international students to study at the Faculty.
- Initiate steps that will help attract international world class faculty members to the international program.
- Take a leadership role in expanding civil engineering education at other academic institutions in Israel. This can take the form of research workshops for civil

engineering academic faculty from other institutions whereby the results of the latest research at the Technion are presented, teaching methods workshops at the Technion or at other institutions for civil engineering and/or invitations to academic staff from other institutions to participate in joint research projects with Technion faculty.

Study Program

The Faculty of Civil and Environmental Engineering at Technion has nine undergraduate degree programs, all leading to the B.Sc. degree: general civil engineering, structural engineering, management and construction, transportation engineering, water resources engineering, environmental engineering, agricultural engineering and mapping and geo-information. The three largest undergraduate degree programs in terms of students are structural, general civil and mapping and geo-information. This faculty also has fifteen M.Sc. degree programs, all with thesis, four M.E. degrees without thesis, and Ph.D. programs in both civil and environmental engineering and agricultural engineering. These programs are all at the highest quality and combine both the theoretical and practical in a series of classroom and laboratory experiences. The programs associated with environmental engineering seem to be particularly strong and have clearly benefited from the synergies associated with the merger of the civil and agricultural engineering faculties in 2002. For example, the soil and water programs seem to have particularly benefited from this merger. There is also a quality program focused on bioprocessing, with very low student numbers and the committee is not sure if it is still relevant as a stand-alone program, or whether it would fit better under another sub-discipline.

Another concern is the relatively low number of students enrolled and a low number of Ph.D. graduates produced in structures and construction management programs. This should be a critical strength of any world-class civil engineering program, but is especially important since Technion is the main producer of faculty members in Israel for all of its civil engineering academic programs.

The Faculty of Civil and Environmental Engineering has an impressive and innovative research plan that is based on a systems approach (as detailed in "Research"). The committee commends this and encourages the Faculty to take corresponding steps to modernize Technion's undergraduate academic programs of study.

Finally, the Faculty of Civil Engineering took the lead in the formation of Technion's International School of Engineering. This English language program has a great potential and the committee encourages its expansion. One possible step would be to appoint an Academic Head whose primary responsibility would be the International School of Engineering.

Recommendations

Immediate:

- Encourage curriculum modifications allowing more required courses to be shared among different faculties, allowing reductions in teaching loads for academic

staff in Civil and Environmental Engineering e.g. with Mechanical, Aerospace, Materials and Industrial Engineering and Management

Intermediate:

- Increase Ph.D. student production to maintain a world-class, research-intense academic institution and an adequately large cohort of researchers
- Appoint an Academic Head whose primary responsibility would be the International School of Engineering.

Students

The committee met with undergraduate and graduate students (both Masters and Ph.D.). The students seemed to be generally satisfied with their studies and learning opportunities provided to them at the Faculty.

Undergraduate students chose to study at Technion for a number of reasons, such as to improve the built infrastructure in Israel, to learn and apply technology to engineering tasks, and to learn to construct buildings and manage projects needed in Israel. Students take 4 to 5 years to complete their undergraduate studies, depending on personal time management, part-time work and family obligations. Students use the tutorials and video system to access lectures and materials, particularly in basic classes, which appear to be good resources for students. The committee's impression was that the teachers were accessible and overall the students have positive feelings about the majority of instruction provided. However, the committee received the understanding that teaching evaluations were not deemed of high value since most lecturers were tenured and concerns could not be effectively addressed.

All the Masters students that met with the committee were teaching assistants supporting 2 to 3 courses on average, with one assisting with 4 courses. Although they indicated that the TA work tended to slow their progress towards their degree, they considered it very worthwhile by providing them with teaching experience and with monetary support. The committee believes that TAs would benefit from structured training to improve their classroom and related skills.

The B.Sc. and M.Sc. students made a good impression on the committee and the committee believes they would be competitive with students in other leading programs throughout the world.

Courses that could be taken by students from different faculties should be encouraged. This would potentially reduce teaching loads and provide additional synergy among faculty members across administrative lines and students from other fields.

Recommendations

Immediate to intermediate:

- Supply structured training to help T.A's improve classroom teaching and related skills
- Encourage students to take courses from different faculties

- Attract non Hebrew speaking faculty into international program in particular in graduate course offerings

Teaching and Learning Outcomes:

The teaching and learning outcomes of the undergraduate programs provide a rigorous, if somewhat dated by comparison with international trends, education in a broad variety of fields in civil and environmental engineering. The breadth of classes available at the undergraduate level is not matched at the doctoral level, where there are not enough specialized graduate classes at the most advanced level for Ph.D. students. This could be addressed in part by allowing for more opportunities for Ph.D. students for individualized independent study offerings in lieu of formal classroom-style coursework. Finally, there was some inconsistency in the fourth year final design experience within the different undergraduate options.

During its meetings with undergraduate and graduate students, the committee received a largely positive feedback on the quality of student interactions with the academic staff of the Faculty. The committee believes that the quality of teaching across the Faculty is high and that the instructional staff is highly competent in their technical specialties.

Recommendations:

Intermediate:

- Plan for an update to the undergraduate curriculum to reflect the evolving needs of the civil and environmental engineering profession
- Consider an increase in the number and breadth of specialized curricular offerings at the graduate level, including opportunities for individualized independent study in lieu of traditional classroom lectures
- Standardize the level (but not necessarily the content) of fourth year final design experience for all undergraduate academic specialties in the Faculty to insure adequate exposure among these specialties to engineering design issues

Human resources

The committee was generally satisfied with the quality of faculty interviewed. There is some concern about the continuation of strong academic leadership at the Faculty that may result from the end of service or retirement of the current Faculty Dean who has been providing outstanding leadership.

The committee was pleased to see that the Faculty maintains continuous connection with the civil and environmental industry practice through its industrial advisory board.

Teaching assistants at the Faculty should be provided with more resources, including adequate computers, printers, and with some administrative support.

Following retirements of senior faculty and other departures, there is a need to hire more academic staff into the Structural Engineering program. To aid in this, the Faculty should consider broadening the definition of its structural engineering program to include nature-inspired structures, aerospace and mechanical engineering structures.

Consideration of new faculty hires should include nontraditional areas present in some of the leading international programs in civil engineering.

Curriculum modifications should be encouraged in order to allow academic credit for more course offerings shared among different faculties. This would potentially reduce teaching loads and provide additional synergy among faculty members across administrative lines.

Recommendations:

Immediate:

- Provide T.A's with adequate facilities and resources

Intermediate:

- Appoint more academic staff into the Structural Engineering program, particularly in areas which broaden the scope of traditional Structural Engineering specialties and research activities.

Organization

The International Program is a positive new program that can move the Faculty and the whole institution towards fulfilling a part of their mission and goals. As it grows, the program would be better served to report to the central administration at Technion with consideration for oversight at the level of an international programs' Dean or equivalent. This would help to eliminate a potential conflict of interest among the faculty members. This would also allow for better coordination and expansion of the International Program. Some means of recognizing the Civil Engineering faculty for the establishment of this program should be developed, as well as providing some incentives to the program faculty, at least until the program reaches the stage of self-sustainability.

The current committee structure and procedures for hiring of new faculty are convoluted and appear to stymie the hiring process. A simplified process would enable the faculty to move forward with filling positions with qualified individuals.

Recommendations:

Immediate:

- Simplify the committee structure and decision making process for screening and selecting the new candidates for appointment to academic staff ranks

Intermediate:

- The International Program should report to the central administration at Technion with consideration for oversight at the level of an international programs' Dean or equivalent
- Develop incentives and recognition for the Civil Engineering faculty of The International Program

Research

Technion Israel Institute of Technology is a world-recognized educational institution – both for its undergraduate and graduate education programs – with a proud history in numerous areas, including Civil and Environmental Engineering. In the QS World University Rankings for 2010 Technion was ranked 57th in the field of *"Engineering and*

Technology". The same QS survey for "*Civil and Structural Engineering Rankings*" in 2011 placed Technion in the 51 to 100 ranked group. The Times Higher Education (UK) survey of World University Rankings for 2010-2011 does not count Technion amongst the "*Top 50 Engineering & Technology Universities*". Finally, the Shanghai Jiao Tong University Academic Ranking of World Universities in "*Engineering/Technology and Computer Sciences*" for 2010 places Technion at 38th. While the accuracy of such rankings is contentious, their value is nevertheless indicative and monitored by potential students. The review committee presumes that the Technion would not be content with such evaluations and would have even higher aspirations, and believes that still more could be achieved by the Faculty of Civil and Environmental Engineering. Internal funding by the Technion for research is very good, with faculty being in the advantageous position of having the majority of graduate student salaries covered by the institutional budget. The overall external research funding, totaling about \$6.5M in 2009, represents a ~ \$116,000 average across the 56 full-time faculty members. This is significant and commendable, as would be expected of a world-class, research intensive faculty in Israel.

Supplementary material provided to the committee during the visit, gave a quantitative evaluation of the *impact* of the Faculty's publications, by analyzing the ISI H index for all staff members for the three divisions. This confirmed that Technion was well-placed amongst peer civil engineering departments at various highly regarded universities in Europe and North America. Citation surveys are just one of many "metrics" that are now common-place at leading research-intensive universities, and it is recommended that the Faculty regularly monitors performance and operational statistics (for both staff and students) as a means of tracking progress towards achieving its goals. The international status of the academic staff is further evidenced by an impressive list of appointments to journal editorial boards and national or international technical committees. The Faculty has an announced strategic plan and vision, based mainly on building on existing strengths. As mentioned before, it is suggested that the Faculty consider staff recruitment and/or joint or courtesy appointments from related cognate disciplines and thus diversify research into non-traditional areas in order to resolve its current academic vacancies.

The Faculty of Civil and Environmental engineering has an impressive and innovative research plan that is based on a systems approach. Its plan is to establish three multi-disciplinary research centers that can form a platform to encourage the formation of research groups. The committee commends this integrated systems approach to research. The recent re-organization of the Faculty into a three-division structure appears to be servicing the research enterprise well. The total number of doctoral students (76) supported by all faculty members (56), in 2009-2010, is a low ratio and a cause for concern, particularly as Technion is the only PhD-granting institution in this field in Israel. Given that there are four bachelor's degree-level institutions in Israel graduating civil or building engineers, and each of these seeks to appoint Hebrew-speaking PhD graduates as faculty members, and particularly with a general bias in favor of structural and construction engineering, there is an onus on Technion to supply this market. Within the Faculty's three divisions, there is a non-uniform distribution of graduate students, particularly at the doctoral level. In particular, the Structural Engineering and Construction

Management Division has a fairly low representation of Ph.D. students, and this number appears to be in further decline.

Recommendations

Immediate:

- Consider academic staff recruitment and appointment from related cognate disciplines and thus diversify research into non-traditional areas. This can be accomplished through a combination of direct new hires and joint/courtesy academic staff appointments among different faculties at Technion, e.g. with Mechanical, Materials, Chemical, and Industrial Engineering
- Intensify efforts to recruit larger cohorts of new doctoral-level students, particularly for the Structural Engineering and Management Division
- Encourage interdisciplinary collaborations between other engineering faculties within Technion. Consider, in particular, academic staff from other faculties such as Mechanical Engineering, Materials Engineering, Aerospace Engineering, Chemical Engineering/Chemistry, and Industrial and Systems Engineering.

Intermediate:

- Monitor performance and operational statistics of the faculty members' publications cited world-wide and employ strategies to address potential concerns in this regard.

Long term:

- Take a leadership role in developing continuing engineering education for faculty in junior engineering institutions throughout Israel.

Infrastructure

The Faculty's infrastructure for teaching and research is dispersed between seven different buildings, ranging from old to state-of-the-art. The upgrading and consolidation of physical space is a recognized priority of the institution, and is likely to be achieved with the aid of benefactors. The research laboratories are very comprehensive in scope and cover a very diverse range of sub-disciplines, with some being well-equipped with modern apparatus but a number requiring upgrading. In the latter category, the principal structural engineering laboratory is quite dated, especially considering a stated ambition to develop a *"Center for Catastrophic Events and Extreme Loading"*. This topic is very timely internationally at present, and of fundamental importance to Israel. A large infusion of capital is required to renovate the building and equip it with servo-hydraulic dynamic testing equipment which is capable of large-scale sub-assembly tests. The stated commitment of the Technion President to generous "start-up packages" for new, ambitious academic staff suggests appointments directly related to laboratory re-generation, with teaching relief provided initially for those with the energy and vision to design, procure, install and commission new research equipment and facilities.

Recommendations

Immediate:

- Conduct a thorough review of the technical condition and current relevance of all laboratories at the Faculty, both teaching and research, and generate prioritized recommendations to the Dean.

Intermediate:

- Produce plans, involving funding and implementation mechanisms, to upgrade specific laboratories (infrastructure and equipment) which are behind the state-of-the-art.

Signed by:



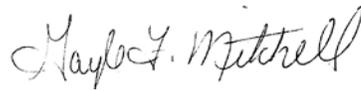
Prof. Miroslaw Skibniewski,
Chair



Prof. Jacob Fish



Prof. Laurence J. Jacobs



Prof. Gayle Mitchell



Prof. Jeffrey Packer

Appendix 1: Letter of Appointment



May, 2011

שר החינוך
Minister of Education

وزير التربية والتعليم

Prof. Miroslaw J. Skibniewski
Department of Civil & Environmental Engineering
A. James Clark School of Engineering
University of Maryland, College Park
USA

Dear Professor Skibniewski,

The State of Israel undertook an ambitious project when the Israeli Council for Higher Education (CHE) established a quality assessment and assurance system for Israeli higher education. Its stated goals are: to enhance and ensure the quality of academic studies; to provide the public with information regarding the quality of study programs in institutions of higher education throughout Israel; and to ensure the continued integration of the Israeli system of higher education in the international academic arena. Involvement of world-renowned academicians in this process is essential.

This most important initiative reaches out to scientists in the international arena in a national effort to meet the critical challenges that confront the Israeli higher educational system today. The formulation of international evaluation committees represents an opportunity to express our common sense of concern and to assess the current and future status of education in the 21st century and beyond. It also establishes a structure for an ongoing consultative process among scientists around the globe on common academic dilemmas and prospects.

I therefore deeply appreciate your willingness to join us in this crucial endeavor.

It is with great pleasure that I hereby appoint you to serve as the chair of the Council for Higher Education's Committee for the Evaluation of Civil Engineering Studies.

The composition of the Committee will be as follows: Prof. Miroslaw J. Skibniewski (Chair), Prof. Jacob Fish, Prof. Laurence J. Jacobs, Prof. Gayle Mitchell, Prof. Jeffrey Packer and Prof. Rodrigo Salgado.

Ms. Yael Franks will coordinate the Committee's activities.

In your capacity as the chair of the Evaluation Committee, you will be requested to function in accordance with the enclosed appendix.

I wish you much success in your role as chair of this most important committee.

Sincerely,

Gideon Sa'ar
Minister of Education,
Chairperson, The Council for Higher Education

Enclosures: Appendix to the Appointment Letter of Evaluation Committees

cc: Ms. Michal Neumann, The Quality Assessment Division
Ms. Yael Franks, Committee Coordinator

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November 2009

Appendix to the Letter of Appointment for Evaluation Committees (Study Programs)

1. General

On June 3, 2003 the Council for Higher Education (CHE) decided to establish a system for quality assessment and assurance in Israeli higher education, which came into effect in the academic year of 2004-2005. Within this framework, study-programs are to be evaluated approximately every six

The main objectives of the quality assessment activity are:

- To enhance the quality of higher education in Israel;
- To create an awareness within institutions of higher education in Israel to the importance of quality evaluation and to develop an internal culture of self-evaluation, as well as the required mechanisms;
- To provide the public with information regarding the quality of study programs in institutions of higher education throughout Israel;
- To ensure the continued integration of the Israeli system of higher education in the international academic arena.

It is not the CHE's intention to rank the institutions of higher education according to the results of the quality assessment processes. The evaluation Committee (hereinafter "Committee") should refrain from formal comparisons.

2. The Work of the Evaluation Committee

2.1 The Committee shall hold meetings, as needed, before visiting the institution, in order to evaluate the material received.

2.2 The Committee shall visit the institutions and the academic units being evaluated – if possible - within 4-6 months of receiving the self-evaluation reports. The purpose of the visit is to verify and update the information submitted in the self-evaluation report, clarify matters where necessary, inspect the educational environment and facilities first hand, etc. During the visit, the Committee will meet with the heads of the institution, faculty members, students, alumni, administrative staff, and any other persons it considers necessary.

2.3 The duration of the visits (at least one full day) will be coordinated with the chairperson of the Committee.

2.4 Following the visit, the Committee will submit the CHE with:

1. A final report on each of the evaluated departments,
2. A general reports on the state of the discipline in the Israeli higher education system. The general report will include recommendations to the CHE for standards and potential state-wide changes in the evaluated field of study.

2.5 The reports will be sent to the institutions and the academic units for their response.

2.6 The reports and Committee's findings will be submitted to the CHE and discussed within its various forums.

3. Conflict of Interest Policy

3.1 In order to avoid situations that may question the credibility and integrity of the evaluation process, and in order to maintain its ethical, professional and impartial manner, before issuing their Letter of Appointment members and chairperson of the evaluation Committee will sign a Declaration on Conflict of Interest and Confidentiality.

3.2 In the event that a member of the Committee is also a current or former faculty member at an institution being evaluated, he/she will not take part in any visits or discussions regarding that institution.

4. The Individual Reports

4.1 The final reports of the evaluation Committee shall address every institution separately.

4.2 The final reports shall include recommendations on topics listed in the guidelines for self-evaluation, including:

- The goals, aims and mission statement of the evaluated academic unit and study programs
- The study program
- The academic faculty
- The students
- The organizational structure
- Research
- The broader organizational structure (school/faculty) in which the academic unit and study program operate
- The infrastructure (both physical and administrative) available to the study program
- Internal mechanisms for quality assessment
- Other topics to be decided upon by the evaluation Committee

5. The Recommended Structure of the Reports

Part A – General background and executive summary:

5.1 General background concerning the evaluation process; the names of the members of the Committee and its coordinator; and a short overview of the Committee's procedures.

- 5.2 A general description of the institution and the academic unit being evaluated.
- 5.3 An executive summary that will include a brief description of the strengths and weaknesses of the academic unit and program being evaluated.

Part B – In-depth description of subjects examined:

- 5.4 This section will be based on evidence gathered from the self-evaluation report and the topics examined by the Committee during the site visit.
- 5.5 For each topic examined, the report will present a summary of the Committee's findings, the relevant information, and their analysis.

Part C – Recommendations:

- 5.6 This section will include comprehensive conclusions and recommendations regarding the evaluated academic unit and the study program according to the topics in part B.
- 5.7 Recommendations may be classified according to the following categories:
- ***Congratulatory remarks and minimal changes recommended, if any.***
 - ***Desirable changes recommended*** at the institution's convenience and follow-up in the next cycle of evaluations.
 - ***Important/needed changes requested for ensuring appropriate academic quality*** within a reasonable time, in coordination with the institution (1-3 years)
 - ***Essential and urgent changes required, on which continued authorization will be contingent*** (immediately or up to one year).
 - ***A combination of any of the above.***

Part D - Appendices:

- 5.8 The appendices shall contain the Committee's letter of appointment and the schedule of the on-site visit.

6. The General report

In addition to the individual reports concerning each study program, the Committee shall submit to the CHE a general report regarding the status of the evaluated field of study within the Israeli institutions of higher education. The report should also evaluate the state and status of Israeli faculty members and students in the international arena (in the field), as well as offer recommendations to the CHE for standards and potential state-wide changes in the evaluated field of study.

We urge the Committees to clearly list its specific recommendations for each one of the topics (both in the individual reports and in the general report) and to prioritize these recommendations, in order to ease the eventual monitoring of their implementation.

Appendix 2: Site Visit Schedule

Version 8/3/2011

Civil Engineering - Schedule of site visit
Technion Israel Institute of Technology, Haifa

Meetings will be held at the Council Room of the Faculty of Civil and Environmental Engineering, Rabin Building, 7th floor

Wednesday, March 16, 2011

Time	Subject	Participants
08:30-10:15	Closed-door working meeting of the committee	Committee members
10:15-10:45	Opening session with the heads of the institution and the senior staff member appointed to deal with quality assessment	Senior Executive VP, Prof. Paul Feigin Deputy Senior VP-Prof. Moshe Sheintuch (until 31/3/2011) Deputy Senior VP-Prof. Prof. Daniel Rittel (from 1/4/2011) Dean of the Graduate School, Prof. Moshe Shpitalni Dean of Undergraduate Studies, Prof. Yacov Mamane
10:45-11:30	Meeting with the Dean of the Faculty of Civil and Environmental Engineering	Prof. Arnon Bentur, Dean Prof. Izhak Shmulevich, Assoc. Dean Assoc. Prof. Aviad Shapira, Assoc. Dean, Prof. Avi Shaviv, Head Division of Environment, Water and Agricultural Eng., Assoc. Professor Oded Rabinovich, Head Division of Structural Engineering and Construction Management, Assoc. Professor Yoram Shiftan, Head, Division of Transportation Engineering & Geoinformation, Assoc. Prof. Avi Ostfeld, Chair, Development Committee
11:30-12:15	Tour of campus (classes, library, offices of faculty members, computer labs etc.)	Prof. Arnon Bentur, Dean Prof. Avi Shaviv, Head, Environmental, Water and Agricultural Eng. Div., Assoc. Prof. Oded Rabinovich, Head, Structures and Construction Management Div.;

		Assoc. Prof. Yoram Shiftan, Head, Transportation and Geoinformation Div.;
12:15-13:00	Lunch (in the same room)	Closed-door working meeting of the committee
13:00-13:45	Meeting with representatives of relevant committees (teaching/curriculum committee, admissions committee, appointment committee)*	Associate Deans, Division Heads, Chair of Development Committee, and Heads of Teaching Programs: Assoc. Prof. Rachel Becker, Management and Construction; Assoc. Prof. Avi Dancygier, Structures Assoc. Prof. Eran Friedler, Environmental Eng. Assoc. Prof. Avi Ostfeld, Water Resources Eng. Assoc. Prof. Uri Shavit, Agricultural Eng. Assoc. Prof. Sagi Filin, Mapping and Geoinformation Eng. Assoc. Prof. Yoram Shiftan, Transportation Eng. Assoc. Prof. Amnon Katz, International Program Assoc. Prof. Mark Talesnik, EWB
13:45-14:30	Meeting with senior academic faculty*	David Broday, Carlos Dozoretz, Michael Stiassnie, Noah Galil, Yaacov Mamane, Michal Green, Ori Lahav, David Yankelevsky, Alex Laufer, Moshe Eizenberger, Raphael Sacks, Shuki Frostig, Abishai Polus, David Mahalel, Shlomo Bekhor, Maxim Shoshani
14:30-15:15	Meeting with adjunct lecturers*	Dr. Ofir Almog, Dr. Gershon Steinberg, Dr. Jad Jarroush, Dr. Beni Frischer, Bari Grinker, Erez Zimhoni, Rony Hitron, Alon Lev, Yossi Sikuler, Yaron Ofir, Yossi Shcultz, Gabriel Trajtenberg
15:15-16:00	Closed-door working meeting of the committee	

Civil Engineering - Schedule of site visit
Technion Israel Institute of Technology, Haifa

Meetings will be held at the Council Room of the Faculty of Civil and Environmental Engineering, Rabin Building, 7th floor

Thursday, March 17, 2011

Time	Subject	Participants
09:00-09:45	Meeting with junior academic faculty*	Non tenured faculty members- Mahmud Jabarin, Yiska Goldfeld, Oren Lavan, Asaf Klar, Tomer Toledo, Eyal Levenberg, Alex Furman, Yael Dubowski, Rafi Linker
09:45-10:30	Meeting with B.Sc. students ***	Up to 8 students from all levels
10:30-11:15	Meeting with M.Sc. students and junior faculty (staff)***	Up to 8 students from all levels
11:15-12:00	Meeting with PhD students and junior faculty (staff) ***	Up to 8 students from all levels
12:00-13:15	Lunch and Closed Door Working Meeting of the Committee	
13:15-14:15	Meeting with Alumni ***	Alex Voznizer, Amikam Oren, David Gat, Eliezer Shamir, Reuvon Lev On, Doron Magid, Haim Srevro, Amir Kedar, Moti Cohen, Gustavo Kronenberg
14:15-15:15	Summation meeting with heads of the institution	President, Prof. Peretz Lavie Senior Executive VP, Prof. Paul Feigin Deputy Senior VP-Prof. Moshe Sheintuch Dean of the Graduate School, Prof. Moshe Shpitalni Dean of Undergraduate Studies, Prof. Yacov Mamane

* The heads of the institution and academic unit or their representatives will not attend these meetings.

*** The visit will be conducted in English with the exception of students who may speak in Hebrew and anyone else who feels unable to converse in English.