



**Committee for the Evaluation of Electrical and Communication System  
Engineering  
Study Programs**

**The ORT Braude College  
Programs in Electrical & Electronic Engineering**

Evaluation Report

**November 2016**

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## **Chapter 1: Background**

The Council for Higher Education (CHE) decided to evaluate study programs in the field of Electrical and Communication System Engineering during the academic year of 2016.

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

- ***Prof. Alan Oppenheim***- Department of Electrical Engineering and Computer Science – MIT, USA. Committee Chair.
- ***Prof. Susan Conry*** –Wallace H. Coulter School of Engineering Electrical & Computer Engineering - Clarkson University, USA.
- ***Prof. Roch Guerin***- Department Chair and Professor of Computer Science & Engineering Department- Washington University in St. Louis, USA.
- ***Prof. Ehud Heyman***- School of Electrical Engineering - Department of Physical Electronics- Tel Aviv University, Israel.
- ***Prof. Eby G. Friedman***-Electrical and Computer Engineering, Department of Electrical and Computer Engineering- University of Rochester, USA.
- ***Prof. Mathukumalli Vidyasagar*** - Chair in Systems Biology Science Erik Jonsson School of Engineering & Computer Science - The University of Texas at Dallas, USA.
- ***Dr. Orly Yadid-Pecht*** - iCORE/ATIF Strategic Chair in Integrated Sensors/Intelligent Systems, Professor and Lab Director - University of Calgary, Canada.
- ***Prof. Dr.-Ing. Walter Kellermann***- Chair of Multimedia Communications and Signal Processing- University Erlangen-Nuremberg, Germany.

Ms. Daniella Sandler and Ms. Inbal Haskell-Gordon served as the Coordinators of the Committee on behalf of the CHE

Within the framework of its activity, the Committee was requested to:<sup>1</sup>

1. Examine the self-evaluation reports, submitted by the institutions that provide study programs in Electrical and Communication System 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 September 2013).

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<sup>1</sup> The Committee's letter of appointment is attached as **Appendix 1**.

## **Chapter 2: Committee Procedures**

The Committee held its first meeting on January 6, 2016, during which it discussed fundamental issues concerning higher education in Israel, the quality assessment activity, as well as Electrical and Communication System Engineering Study programs in Israel.

In January 2016, the Committee held its visits of evaluation to 12 programs: Tel-Aviv University, the Technion, Bar-Ilan University, Ben-Gurion University, Shamoon College of Engineering, Ruppin Academic Center, Azrieli - College of Engineering Jerusalem, Lev Academic center, Ort Barude College, Holon Institute of Technology, Ariel University and Afeka College of Engineering. During the visits, the Committee met with various stakeholders at the institutions, including management, faculty, staff, and students.

This report deals with the programs of Electrical & Electronic Engineering Administration at the ORT Braude College. The Committee's visit to the University took place on January 14, 2016.

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

The Committee thanks the management of the ORT Braude College and the Department of Electrical & Electronic Engineering for their self-evaluation report and for their hospitality towards the committee during its visit at the institution.

## **Chapter 3: Evaluation of Electrical & Electronic Engineering Study Program at the Ort Braude College**

*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.*

### **1. Executive Summary**

The Electrical & Electronic Engineering study program at the Ort Braude College faces the dilemma to provide to about 400 B.Sc. students high-quality education which is competitive with that of Israel's universities, but also to offer opportunities to students from lower social strata and minorities with less academic background. Moreover, the college structure cannot easily support research of its faculty members and promote faculty accordingly which makes it difficult to attract young and ambitious faculty. Given these challenges, the visiting committee felt that the department was organized efficiently and found a good balance when pursuing competing goals. Clearly, the lack of permanent faculty and the lack of involvement of the numerous adjunct faculty should be addressed as urgent problems to be solved. This should also help to consolidate the specialization areas, such that these comprise all the essential and characteristic courses for the respective area and meet the expectations of both students and industry. More observations and detailed additional recommendations are discussed in the sequel and summarized at the end of this chapter.

### **2. Mission and Goals**

#### Observations and findings

The Electrical and Electronic Engineering department of the ORT Braude College (OBC) defines its mission in the self-evaluation report in very general terms, namely, to *educate highly qualified electrical and electronic engineers*. The specific profile of OBC is reflected in the description of a set of values

applying to students, faculty, administrative staff, and the college as a whole. During the visit, it was emphasized that education should be especially offered to students in the north of Israel keeping an eye on those from lower social strata and minorities. Especially for this clientele, career opportunities in Israel's high-tech industry should be opened up. It was also emphasized that Israel is short of qualified hands-on engineers for less research-oriented tasks, and Ort Braude College aims at meeting this demand.

Research is seen as an essential component of faculty employment as far as it is necessary for qualified teaching. In general, at colleges, research should focus more on applied research. The need for more resources, i.e., additional staff, reduced teaching load, more and more research-oriented lab equipment, is clearly expressed as a precondition for competing with universities on the same technical level. So far, this level can only be reached by individuals who are especially committed to research and continue along research avenues they pursued prior to joining the college or benefit from links to either universities or industry. The fact that promotion crucially depends on cutting-edge research achievements is viewed as inappropriate given the necessary effort to fulfill even the minimum teaching requirements and the fact that colleges are not funded for research. Nevertheless, research is accepted as a mandate from outside and efforts are encouraged, e.g., by travel funds for conferences, and results are visible in the report.

The specific goals listed in the self-evaluation report appear to be very ambitious but not out of reach. For verification of graduate employment and students enrolling for higher degrees, data needed to be collected by a mechanism which is currently not in place. Moreover, given the shortage of permanent staff, offering an attractive high-quality MSc program poses a challenge.

## Recommendations

### **Essential:**

- Keep the mission of the school focused on providing high-quality engineering education for the regional population and continue to emphasize hands-on experience while raising the academic level of the program. In particular, stay the course in avoiding grade inflation even if competition with universities can push in that direction.

### **Advisable:**

- Use every opportunity to explain to decision-makers the dilemma of being evaluated for research achievements but not being funded for research. Continue to support individual research efforts and provide additional support to those willing and prepared to engage in research as a basis for a well-founded MSc program.

### **Desirable:**

- Establish a systematic process which allows verification of the achievements regarding the goals of qualified employment and enrollment to higher studies of OBC graduates.

## **3. Organizational Structure**

### Observations and findings

From the documentation and the statements during the visit, all processes and decision-making are carried out by appropriate bodies and their respective chairs. The organization of the Department appears to be efficient and coherently streamlined towards teaching, while providing some opportunity for individual faculty to pursue research interests to the benefit of the Department's scientific standing. The Head of Department (HoD) appears to be the principal decision maker for most issues related to the program and the infrastructure of the Department, although the general management style seems to be inclusive. It appears that the adjunct faculty is not involved in the various committees, and

their very large number makes managing them a challenge. Conversely, the large number of adjunct faculty is also a reflection of the recruiting challenges that the college faces, both in competing with industry salary and in being able to officially recruit candidates whose age is above the allowed limit for full-time positions. While most committees seem to serve their purpose very well, questions arose during the visit regarding the efficiency of the Teaching and Learning Committee (see Section 7 - Teaching below). Moreover, long-term strategic planning and implementation of new study programs and research are hampered by the fact that the number of permanent staff is disproportionately low.

### Recommendations

#### **Essential:**

- Explore how to involve more adjunct faculty for organizational tasks supporting the development of the department with regard to both study programs and research.

#### **Desirable:**

- Monitor the efficiency of the various committees to maximize the positive impact on the study program, e.g., regarding the course evaluation and the Excellence program.

## **4. Study Programs**

### Observations and findings

Regarding the enrollment for the EEE program at OBC, numbers were provided for 2009 to 2013 and showed a downward trend both with respect to applicants and admitted students. While in 2009 225 applicants were registered, there were only 150 in 2013, and while 185 students were admitted in 2009, there were 133 in 2013. According to the HoD, this drop in applications and increase in admission rate could be a consequence of the raised requirements for regular admission (it was raised from an Israeli psychometric score 500 in 2008 to minimum 550 for

the academic year 2012/13). The histograms in the self-evaluation show a clear tendency towards higher psychometric test scores of the admitted students, along with a reduced percentage of Practical Engineers and applicants exempted from the regular admission requirements. During the same time interval, the dropout rate has been reduced considerably, so that the number of graduates is essentially constant at around 100 graduates per class. With more than 20%, the dropout rate is still high, which, according to the HoD, is a logical consequence of the 'second chance policy' resulting from OBCs mission to support regional students with widely varying educational backgrounds: Some students will be exempted from meeting the regular admission requirements in order to give them a chance to make up for educational deficiencies.

Regarding the study tracks, a consolidation from four to three study tracks has been implemented in response to the CHE evaluation of 2007 recommending a narrowing down of the specializations. However, merging two tracks to a resulting track, *Semiconductor Devices, Image Processing, and Electro-optics*, was found to be an unsatisfactory solution by the Department and has been subsequently modified to move the signal processing courses to the Communications and High-Frequency track (the status as of January 2016 is not documented in the self-evaluation report). Regarding the further development of the department, the establishment of a power ('Heavy current') track is considered as it is felt that Israel is in need for hands-on power systems engineers. Currently, electives on power systems and electrical drives are offered and new labs for power electronics and high-voltage techniques are under construction to support this track in the future, while a related track in the applied physics department is being considered.

Given the college's goal of preparing the students for further studies, the President of OBC pointed to a survey of alumni responses showing that about 15% of them continue to advanced studies, with some of them being admitted to MIT,

Cambridge, MA, the University of Rochester, NY, and the University of Pittsburgh, PA.

Alumni viewed it as an unjustified handicap that the grades of OBC are not accepted as equivalent to those of universities when applying for admission to further studies, and additional courses need to be taken by OBC graduates before being admitted to universities, e.g., Technion.

Obtaining approval for a M.Sc program is one of four explicitly formulated goals for the department, but with no deadline given. At the time of the visit, the recruitment of adequate permanent staff was seen as the main obstacle.

The department also installed an Excellence program which distinguishes itself from the regular study program mainly by a significantly higher admission threshold (psychometric test score of 680 minimum) and the replacement of two elective courses by a research project. However, the fact that the program enrolls students before the department has been able to properly evaluate them makes its operation problematic. Students admitted into the program are expected to be sufficiently independent as young researchers, but this is difficult to verify before admission. Hence, many fail once admitted. Students reported that some participants withdrew from the program. A more progressive ramp-up selection process after students have demonstrated a stated interest in a research topic might be more effective.

The school receives feedback for its study programs and insight into the real-world needs of industry via various informal communication channels, especially via the internships during the 4<sup>th</sup> year projects. Alumni confirm that most graduates start their career in production and only slowly move to positions in development units of industry.

## Recommendations

### **Essential:**

- Reconfigure the tracks such that each track has a clear and consistent profile.

### **Advisable:**

- Reconsider the establishment of the power systems engineering track to ensure that actual mid- and long-term needs are addressed and that OBC graduates will be successful in the job market.

### **Desirable:**

- Reconsider the implementation of the Excellence program to better meet the goal of allowing gifted students to be exposed to research early.
- Teach some technical elective courses in English; offer advanced English course for improving oral and written communication

## **5. Human Resources / Faculty**

### Observations and findings

While the student/faculty ratio is not extraordinarily high, and the staff for lab courses appears to be sufficient, the number of permanent faculty (12) is very low relative to that of adjunct teachers (46 according to the HoD at the time of the visit). The HoD mentioned that management of the department with all its teaching obligations poses a major challenge as the adjunct staff in general is not easily reached and is not attending meetings. While adjunct faculty members are not perceived as different from regular staff by the students, they usually do not have a meeting room for interacting with students.

A relatively large number of faculty do not have engineering degrees but degrees from the natural sciences, which is seen as an advantage regarding the broadness of education. The orientation of the faculty members towards industry was seen as a key factor for being able to offer relevant education.

The hiring process of additional permanent faculty faces the same obstacles as with all other colleges (high teaching load, no government support for research with promotion based on research output, no competitive salary). The research criteria for promotion at OBC are formulated in terms of published papers, while some members of staff expressed that the criteria should consider teaching-related criteria more prominently. It was mentioned that regular staff would not be allowed to have more than 100% employment, which was said to be possible at other colleges. As other options to relieve the shortage of permanent staff, it was suggested to abolish the forced retirement of regular staff at age 67 and the need to have a PhD for experts with strong backgrounds from industry.

### Recommendations

#### **Essential:**

- Continue to explore ways to recruit younger, highly qualified permanent staff and to offer them attractive research environments, possibly by sharing the existing labs, reducing teaching load, or other incentives.

#### **Advisable:**

- Explore opportunities to benefit from the willingness of some adjunct faculty to become more involved with organizational tasks and decision-making in the department.

#### **Desirable:**

- Provide a meeting space for the interaction between the adjunct staff and the students.

## **6. Students**

### Observations and findings

The students' situation is similar to many other institutions of higher education in Israel, insofar as most of them work during the 3rd and 4th year

of their studies to support themselves or their families. The part-time jobs affect their grades and the overall quality of their education. It was stated by the HoD that even if the college paid for the interest of a loan, students preferred to work. It is estimated that during the 3<sup>rd</sup> and 4<sup>th</sup> year about 50%-80% of the students work in jobs requiring technical skills (e.g., as a technician). The lower-ranked students and the more junior students will work in unskilled jobs. The students feel under pressure to connect to a company early during their studies to find a job after graduation.

At the college, the students feel well-treated and respected by faculty and are comfortable with each other. Students find the staff very approachable and helpful, both regular staff (including dean) and adjuncts. While no formal individual mentoring exists, at least one weekly hour of faculty members is reserved for consultation and individual support is provided to students, e.g., recommendation letters for higher studies.

As alumni, the students realize that, at Rafael and other regional companies, ORT Braude students are known, appreciated, and hired. At Rafael they are said to develop successful careers, although not easily in R&D. Relative to Technion graduates the OBC graduates feel under-appreciated in the application process. Some alumni keep links to their department but not at the college level.

### Recommendations

#### **Advisable:**

- Keep the family spirit of a regional college, while simultaneously, promoting and challenging the students.

#### **Desirable:**

- Intensify networking with alumni in industry, including those who went to universities for higher studies. Social networks could be used for

maintaining links with alumni, e.g., to receive general feedback or concrete job offers.

## **7. Teaching and Learning Outcomes**

### Observations and findings

A Teaching and Learning Subcommittee is in place which ensures that teaching issues can receive appropriate attention. It is in charge of the curriculum, and proposes changes to be approved by the Department Forum or by the Academic Council of the college. There is no systematic periodic review process for the curriculum in place.

The courses in mathematics and especially physics are considered by the students to be very difficult and abstract, and lacking application examples and serving mostly as filters for subsequent studies. Many students take math courses twice, dropouts due to math are said to be rare. Nevertheless, many of the students are afraid of not making the cut-offs; for hard courses some study in groups. On the other hand, some application-oriented courses in the 3rd and 4th year were found by some students to be too weak for the expectations of industry. The option to retake exams is appreciated despite the risk of lowering the grade. In general, students felt that their level of competence regarding the use of English should be improved in view of international employers such as Intel. The few English-language courses and labs are highly appreciated. Remedial preparatory courses lasting several months, which should be taken before the BSc program is entered, are adequate but not all students in need attend.

The organization of the courses is challenged by the facts that many students need to work and lecture hall space is said to be scarce. At some point it was stated that 50% of the students cannot attend the classes due to space constraints, e.g., when the same course is taught by two Lecturers, one good and one bad, so that the majority of the students flock to one class. Others

choose their courses not according to their interests but to fit their working hours. While some students use videos and Moodle for distance learning and even prefer it over being present in the classroom, the faculty appears to see little need for new teaching methods to better support the students, and there were no significant complaints in this regard from the students.

For some courses, workshops and recitations are supervised by faculty which is highly appreciated by the students. Some lab courses are oversubscribed, while on the other hand, some courses are cancelled for lack of participants, so that the choices of electives are further reduced.

The students expressed dissatisfaction with the quality of some teachers ('some people shouldn't teach') especially for courses in the 3rd and 4th year. While the course evaluation system should capture this, students do not see any improvement. The HoD acknowledges that, while teachers with low ratings are offered help, the department may not always be able to replace a bad teacher for lack of alternative teachers for a given course. While a convincing system for handling complaints is described in the self-evaluation report, the students asked during the visit were not aware of it, but said that they turn to the department secretary or the student unions.

Regarding the final projects, students appreciate the requirement to design actual hardware but feel the choices are too limited and, in general, ask for more research-oriented projects. They feel that projects in collaboration with outside industrial partners are generally more interesting and relevant. The stipulated duration of external projects has been reduced from 1000 hrs to 800 hrs, but is often significantly longer in reality.

### Recommendations

#### **Essential:**

- Find effective mechanisms to improve the quality of notoriously low-rated courses. Students should see an impact of the course evaluation.

**Advisable:**

- Ensure that faculty and highly qualified staff keep engaged in workshops and recitations for building strong foundations in math and physics.
- Reach out to industry more proactively to meet the request for more attractive and relevant project work to provide additional options for up-to-date training and to better connect the students to potential employers.

**Desirable:**

- Offer more courses taught in the English language. While mandatory courses could be problematic for some students, English-language electives should be an attractive offering, especially to students aiming at international employers or further studies.

**8. Research****Observations and findings**

The lack of time for research due to the high teaching load and the lack of infrastructure for experimental research was mentioned at all levels, from the B.Sc students who lack advisors and equipment for research-oriented final projects, to the president who sees the research mission of the college jeopardized. The research activities listed in the self-evaluation report attest to the fact that a significant part of the staff could increase its research output if resources were available. Some incentives are provided to faculty by supporting conference travel and membership fees for scientific organizations. Some individuals are very active in the scientific community, but it is obvious that the more visible research activities often rely on links to collaborators and funding from outside OBC.

**Recommendations****Advisable:**

- Keep the motivation for research among faculty high and identify further opportunities to support research activities, especially those efforts that support the college's teaching mission.

## **9. Infrastructure**

### Observations and findings

During the visit, the shortage of space was mentioned by the president and the HoD. The visited labs were apparently well-equipped and the technical scope and level of one of the lab courses was impressive. According to the self-evaluation report, several new labs are under construction. A glance into one of the auditoria added to the impression of a modern and very well-maintained institution.

### Recommendations

#### **Desirable:**

- Explore opportunities to use existing lab infrastructure for supporting more research activities.

## **10. Self-Evaluation Process and implementation of previous recommendations**

### Observations and findings

The self-evaluation report has been carefully written and provides detailed information regarding all aspects under evaluation.

The report of the 2007 CHE examining committee included a number of recommendations. These recommendations and the observed responses of the EE department of OBC were as follows:

- *Specializations should be narrowed down to particular fields where the college can excel.*
  - According to the information provided at the visit, the number of specializations has been reduced from four to three. The corresponding descriptions in the self-evaluation are, however, not

entirely consistent. An additional power systems track is currently prepared. The requested specialization to few narrow areas could not be observed.

- *The final year industry project should be reduced in size and additional courses should be taken instead to broaden the theoretical background of the students.*
  - The size of the mandatory industry project has been reduced from 1000 hrs to 800hrs. Alternatively, internal projects can be chosen of 300hrs and 400 hrs. Thereby, on average, the students choose two more elective courses for completion of the program.
- *The number of TAs is too small, and the ratio of TAs to students in laboratories is too small.*
  - The ratio of TAs to students in the laboratories has improved somewhat.
- *The committee feels it is too early to consider approval for a master's degree.*
  - The master's program is still formulated as a goal but has not been started yet.
- *The admittance threshold is low and the drop-out rate is high.*
  - Although the previous evaluation accepted this situation as a consequence of the policy of granting many students of the region a second chance, the admittance threshold was raised and the drop-out rate has been lowered so that the number of graduates remains approximately constant although fewer students have been admitted in recent years. The dropout of more than 20% still appears high, but is plausible given the general policy and goals of the department.
- *Half of the teaching is carried out by adjunct lecturers.*

- The EEE department was somewhat successful in increasing the number of full-time permanent faculty despite some retirements. At the time of the visit the number of full-time permanent faculty was said to be 12, which still seems small relative to 46 adjunct teachers. The newly hired staff has predominantly an electrical engineering profile. According to the self-evaluation report, faculty staff currently teaches about 75% of the lecture hours, while the adjunct faculty teaches around 75% of the practices and laboratory hours.
- *A communications lab is missing.*
  - A communications lab was established and numerous other labs were upgraded or are about to be newly installed. Great efforts have been successfully invested.

## **Chapter 4: Summary of Recommendations**

### **Essential Recommendations:**

- Keep the mission of the school focused on providing high-quality engineering education for the regional population and continue to emphasize hands-on experience while raising the academic level of the program. In particular, stay the course in avoiding grade inflation even if competition with universities can push in that direction.
- Explore how to involve more adjunct faculty for organizational tasks supporting the development of the department with regard to both study programs and research.
- Reconfigure specialization tracks to ensure that each track has a clear and consistent profile.
- Continue to explore ways to recruit younger highly qualified permanent staff and to offer them attractive research environments, possibly by sharing the existing labs, reducing the teaching load, or other incentives.
- Find effective mechanisms to improve the quality of notoriously low-rated courses. Students should see an impact of the course evaluation.

### **Advisable Recommendations:**

- Use every opportunity to explain to decision-makers the dilemma of being evaluated for research achievements but not being funded for research. Continue to support individual research efforts and provide additional support to those willing and prepared to engage in research as a basis for a well-founded MSc program.
- Reconsider the establishment of the power systems engineering track to ensure that actual mid- and long-term needs are addressed and that OBC graduates will be successful on the job market.
- Explore opportunities to benefit from the willingness of some adjunct faculty to become more involved with organizational tasks and decision-making in the department.

- Keep the family spirit of a regional college, while promoting and challenging the students at the same time.
- Ensure that faculty and highly qualified staff keep engaged in workshops and recitations for building strong foundations in math and physics.
- Reach out to industry more proactively to meet the request for more attractive and relevant project work to provide more options for up-to-date training and to better connect the students to potential employers.
- Keep the motivation for research among faculty high and identify further opportunities to support research activities, especially those efforts that support the college's teaching mission.
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**Desirable Recommendations:**

- Establish a systematic process based on feedback from alumni and industry partners which allows verification of the achievements regarding the goals of qualified employment and enrollment to higher studies of OBC graduates.
- Monitor the efficiency of the various committees to maximize the positive impact on the study program, e.g., regarding the course evaluation and the excellence program.
- Reconsider the implementation of the excellence program to better meet the goal of providing the gifted students with early exposure to research.
- Provide a meeting space for interactions between the adjunct staff and students.
- Intensify networking with alumni in industry, including those who went to universities for higher studies. Social networks could be used for maintaining links with alumni, e.g., to receive general feedback or concrete job offers.
- Promote proficiency regarding the use of the English language by a) offering advanced English language courses for improving oral and written communication and b) offering more technical courses taught in English. While mandatory courses could be problematic for some students, English-

language electives should be an attractive option, particularly for students aiming at international employers or further studies.

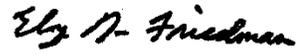
- Explore opportunities to use existing lab infrastructure for supporting more research activities.

**Signed by:**



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Prof. Alan Oppenheim - Chair



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Prof. Eby G. Friedman



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Prof. Ehud Heyman



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Dr. Orly Yadid-Pecht



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Prof. Mathukumalli Vidyasagar



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Prof. Susan Conry



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Prof. Roch Guerin



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Prof. Dr.-Ing. Walter Kellermann

## Appendix 1: Letter of Appointment



December 2015

Prof. Alan Oppenheim  
Department of Electrical Engineering and Computer Science  
MIT  
USA

Dear Professor,

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The Israeli Council for Higher Education (CHE) strives to ensure the continuing excellence and quality of Israeli higher education through a systematic evaluation process. By engaging upon this mission, the CHE seeks: 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.

As part of this important endeavor we reach out to world renowned academicians to help us meet the challenges that confront the Israeli higher education by accepting our invitation to participate in our international evaluation committees. This process establishes a structure for an ongoing consultative process around the globe on common academic dilemmas and prospects.

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

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 the study programs in **Electrical and Communication System Engineering**. In addition to yourself, the composition of the Committee will be as follows: Prof. Susan Conry, Prof. Roch Guerin, Prof. Ehud Heyman, Prof. Mathukumalli Vidyasagar, Dr. Orly Yalid-Pecht, Prof. Eby Gershon Friedman, Prof. Dr.-Ing Walter Kellermann.

Ms. Daniella Sandler and Ms. Inbal Haskell-Gordon will be the coordinators of the Committee.

Details regarding the operation of the committee and its mandate are provided in the enclosed appendix.

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

Sincerely,

Hagit Messer

Prof. Hagit Messer-Yaron  
Vice Chair,  
The Council for Higher Education (CHE)

*Enclosures:* Appendix to the Appointment Letter of Evaluation Committees

cc: Dr. Varda Ben-Shaul, Deputy Director-General for QA, CHE  
Ms. Daniella Sandler, committee coordinator  
Ms. Inbal Haskell-Gordon, committee coordinator

**Appendix 2: Site Visit Schedule**

**ORT Braude – January 14, 2016**

<b>Time</b>	<b>Subject</b>	<b>Participants</b>
9:30-10:15	Opening session with the heads of the institution and the senior staff member appointed to deal with quality assessment	Prof. Maharshak + Prof. Barzilai + Prof. Eitelberg + Dr. Shteeman + Dr. Kosolapov
10:15-10:45	Meeting with the academic and administrative heads of the department of Electrical and Electronic Engineering	Prof. Eitelberg + Ms. Meir-Levy
10:45-11:00	<b>Break</b>	The Committee (closed door meeting)
11:00-11:40	Meeting with senior academic staff – Electrical Engineering Department*	Departmental forum (except Prof. Eitelberg): Prof. Gladshtein, Dr. Gershikov, Dr. Kosolapov, Dr. Kotek, Dr. Sabag, Dr. Sabban, Dr. Shteeman, Dr. Trotskovsky, Dr. Tarif, Ms. Elkind, Mr. Sade, Mr. Tsur
11:40-12:00	Meeting with senior academic staff – Physics and Mathematics Divisions*	Representatives of Physics Division (Prof. Berger + Prof. Lipson) & Mathematics Division (Prof. Karp + Dr. Ostrovsky)
12:00-12:45	Meeting with B.Sc. students**	
12:45-13:45	<b>Lunch</b>	The Committee (closed door meeting)
13:45-14:30	Final Project Presentations**	Alumni projects: Mr. Giladi, Mr. Otsri, Mr. Shakkour, Mr. Kalnish
14:30-15:00	Meeting with Alumni**	Alumni: Mr. Giladi, Mr. Otsri, Mr. Shakkour, Mr. Kalnish, Mr. Katz
15:00-15:45	Meeting with adjunct lecturers**	Adjunct staff: Dr. Reiner, Dr. Florescu, Dr. Livne, Dr. Manela, Ms. Hatzrinov, Mr. Alexandron, Mr. Zorea
15.45-16:15	Tour of campus (classes, library, offices of faculty members, computer labs etc.)**	- Devices lab (Dr. Shteeman) - VLSI lab (Dr. Reiner) - Renewable Energy lab (Dr. Kotek) - Library (Ms. Zeierman)
16:15-16:30	<b>Break</b>	The Committee (closed door meeting)
16:30-16:45	Summation meeting	The Committee + Prof. Eitelberg + Dr. Shteeman + Dr. Kosolapov + Prof. Maharshak + Prof. Barzilai
16:45- 17:15	Closed Door Meeting	The Committee (closed door meeting)

\* 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.