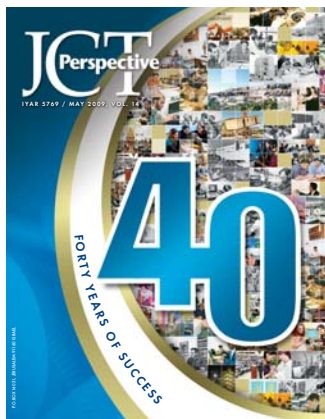


JCT Perspective

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40
FORTY YEARS OF SUCCESS



JERUSALEM COLLEGE OF TECHNOLOGY

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COMMENTARY



Shalom!

As we enter our 40th Anniversary year, there is much for which JCT is grateful. We have grown from a small apartment in the Bayit Vegan

area of Jerusalem to a nine-acre men's campus (Machon Lev) in Givat Mordechai with 16 academic & dormitory buildings, 27 science laboratories, 47 lecture halls, 2 libraries, 200 dormitory rooms (containing 540 beds) and a Beit Midrash (Jewish Study hall) with seats for 630 people. In addition, we have established two women's institutes – Machon Tal in Jerusalem, where we rent over 50,000 sq. ft. for classrooms, laboratories, a library and a nursery for student mothers, in addition to the dormitory building for 125 female students, and our Lustig Institute in Ramat Gan which provides facilities for Haredi women to receive academic degrees.

Our total student enrollment has grown from a handful of students in 1969 to close to 3,000 today, and is continuing to grow at a rate of some 10% per year.

Although numbers are important, what really matters is who we are and what qualities and messages the College stands for and promotes. Our central message is that of תורה עם דרך ארץ (Torah with gainful employment) – the idea that the life of a Jewish person should be devoted on a daily basis to Torah learning and earning a livelihood for the benefit of his/her family and community; thus the daily schedule of our students is inspired by Torah and

academic professional excellence.

Another central point of JCT's educational policy is its commitment to Israel as the core for the Jewish People in every sphere. We believe that instilling these values is the reason our graduates remain in Israel, even during these difficult economic times. This, of course, also includes a commitment to Israel's security – the importance of personally serving to protect the Jewish People in the Jewish State; in fact, the majority of the Israel Defense Forces' professional officers in specific armaments development areas are JCT graduates.

It goes without saying that this commitment includes of course, the strengthening of Jerusalem. As one of the major resources for high-tech industry in the city, scores of JCT's graduates and faculty have founded many, even some of the largest, companies in Jerusalem.

JCT's commitment for the betterment of Israel's society by establishing special academic programs for various population groups is well known. We have come a long way in our first 40 years. However, we are not sitting on our laurels. With our ears pinned to the ground, we are constantly watching which direction the markets are going in order to open up new academic programs to ensure the best trained manpower for tomorrow's future.

We believe the best is yet to come in the next 40 years.

Reuven Surkis
Reuven Surkis

Vice President for Development
and External Affairs

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PRESIDENT'S MESSAGE

Dear Friends,

Over the last half year people have been asking me with increasing frequency, "How is the world financial crisis affecting JCT? How is JCT coping?"

Indeed, JCT is affected in many ways by the financial crisis. While we have not been hit directly by recent financial scandals, several of our major supporters are hurting badly. At the same time, it is most gratifying to note that many foundations and individuals are trying very hard to keep to their long-term pledges.

However, the impact is not limited to fiscal aspects. JCT has been studying the ramifications from additional perspectives - one of the most important being that of job placement for graduates. As a result, we are devoting more attention to assisting our graduates to find employment and we are giving guidance to those students about to complete their studies on how to present themselves to prospective employers.

Other angles that we need to watch are: student enrollment of low-income minority groups such as the Haredi and the Ethiopian communities, shifts in enrollment preferences between academic departments, availability of R&D funds, etc. We will continue to monitor these areas as the situation develops.

We have also been able to draw some encouraging conclusions:

- 1) JCT is a "low-fat" institution - we run a tightly balanced budget that is managed frugally and responsibly, with no frills.
- 2) JCT has a very modest endowment but at least the little that we have is invested conservatively and cautiously.
- 3) Ethical values in the market-place have become a world priority. Our new MBA program will put a strong emphasis on Jewish business ethics, including individual case studies.
- 4) Over the last 3 years JCT has decreased the dependence of its operational budget upon donations, while increasing proportionately our fund-raising endeavors for the Capital Budget. This strategic decision has contributed significantly to our ability to weather the storm.

So, if you are asking why JCT needs my support at this time, my reply is that on this 40th anniversary of JCT, we look to our friends and supporters to stand together with us to ensure the continued success of the College and its principles and ideals for the future of Israel.

Prof. Joseph S. Bodenheimer



A SANCTIFIED TIME

by Rabbi Shalom Miller

There is an important theme that reappears numerous times throughout the Book of *Vayikra* (Leviticus). Its significance is so fundamental that a lack of appreciating its centrality not only greatly hinders our ability to recognize that which unifies the Book as a whole, but it also conceals from us a depth of understanding and meaning of this particular period in the Jewish calendar.

After the Torah delineates many of the *Kodshim* (sacrifices) in the opening weeks of *Vayikra*, the portion of *Shmini* deals in part with the permissible and prohibited consumption of animals. The section concludes with the following statement, “For I am Hashem your G-d - you shall sanctify yourselves and you will be holy for I am Holy; and you shall not contaminate your souls through any teeming thing that creeps the earth. For I am Hashem Who elevates you from the land of Egypt to be a G-d unto you; you shall be holy, for I am Holy.” (11:44, 45). Similar verses are found in the portion of *Kedoshim* with regard to the restricted immoral relationships. “You shall be holy for Me, for I Hashem am Holy; and I have separated you from the nations to be Mine.” (20:26). *Emor* deals at length with the holiness that must be maintained by the *Kohanim* (Priests). This section is followed by the key overview of the festivals, also termed *Mikraai Kodesh* (Holy days). Towards the end of *Vayikra*, in the portion of *Bahar*, we find that the Jubilee year is “to be holy unto us”. (25:12)

Before explaining what the Torah intends to teach us, it must be noted that this theme of *Kedusha* (sanctity) is simultaneously echoed in the process of counting the *Omer* (a verbal counting of each of the forty-nine days between Passover and Pentecost). Within the concluding prayer we beseech Hashem that through our counting and working on personal attributes we “be purified and sanctified with the holiness of Above.”

Chazal (our Sages of blessed memory) choose to call the Book of *Vayikra* “*Torat Kohanim*” (the teaching of the Priests). At first glance, the name seems a bit strange because

Vayikra does not deal solely with matters pertaining to the *Kohanim*; there are many commandments included in the third book of the Torah which are applicable to the entire Jewish people.

When we received the Torah at Mount Sinai, Hashem called us “a kingdom of priests and a holy nation.” This title places a responsibility upon us far beyond simply carrying out the *mitzvot* (commandments). Hashem expects that every member of His chosen nation attain the level of *Kedusha*. In the succinct words of *Chazal*, “Sanctify yourself in what is permitted to you” (*Yevamot* 20b). Within the realm of *kedusha* there are endless levels of growth that can be achieved. This concept, a prerequisite for receiving the Torah, can so easily be forgotten by those of us who already consider ourselves religious, G-d-fearing Jews. The Book of *Vayikra* and the counting of the *Omer* comes along week in and week out, and day in and day out, reminding us how incumbent it is to continuously seek *kedusha*.

In this light, it can be suggested that when the Rabbis named *Vayikra* “*Torat Kohanim*” they were not referring simply to the priestly tribe. Our Sages were indicating that the teachings of sanctity and holiness in this Book, which unmistakably build on the basic foundations of the Book of *Shmot* (Exodus), apply to the entire kingdom of priests!

While we read about *kedusha* in the Torah and work on our personal *kedusha* via the counting of the *Omer* we commemorate the lives of the *Kedoshim*, those who died sanctifying G-d’s name. It is not a random coincidence that days like *Yom Hashoah* and *Yom Hazikaron* occur at this time of year. These days and their significance both serve to impress upon us the extent to which the concept of *kedusha* reaches and help us strive to attain added levels of sanctity within our own lives.

Rabbi Shalom Miller is a Ra’m (teacher) in JCT’s English Speakers Program

ON CAMPUS

• **Professor Abba Engelberg**, Head of Machon Tal, JCT's Women's Institute, together with **Dr. Yoel Arieli**, Head of the Department of Electro-optics and **Chaim Rosenfeld**, JCT's Job Placement Officer, recently took a group of electro-optics and medical engineering final-year students on a tour of high-tech companies. The aim of the tour was to give the young women a feeling for working conditions in high-tech, and an understanding of how a young mother can juggle her job with her family life.

The students visited *Real Imaging*, a successful start-up established in Lod by JCT graduate **Boaz Arnon**. This company researches the development of a new scanning technology to be used against cancer and other diseases. In addition to learning about the technical aspects, they met with six graduates of Machon Tal who are employed there, some of whom are young mothers.

The students then visited *Lumus* in Rechovot where three Machon Tal graduates are employed. *Lumus* has invented ultra-compact, see-through eyewear based on the company's patented breakthrough LOE technology that delivers a virtual image to the eye enabling one to see video images in addition to regular vision.



Machon Tal students at Lumus with the CTO and inventor of LOE Technology, Yaacov Amitai

Finally the students visited *El-Op* also based in Rechovot, a company that is recognized world-wide as a leader in the research, development, design, manufacture, sales and support of electro-optics based products and systems. There they met with several JCT graduates including **Shira Giladi** who started her job at *El-Op* whilst working on her final project at Machon Tal and who is now a Systems Engineer and nearing the completion of her Master's Degree.

• A **Seminar** was recently held at Machon Tal for students of the Nursing Degree program on the subject of bone marrow transplants. Lectures were given by two physicians – **Prof. Reuven Or**, Head of the Bone Marrow Transplant Department at Hadassah University Medical Center in Jerusalem's Ein Kerem, and **Dr. Bezalel Perl** of Shaare Zedek's Internal Medicine and Emergency Departments.



Prof. Reuven Or addressing the Machon Tal students.

Congratulations

The Council of Higher Education has approved the awarding of a professorship to **Dr. Shlomo Engelberg**, Head of the Electronics Department.

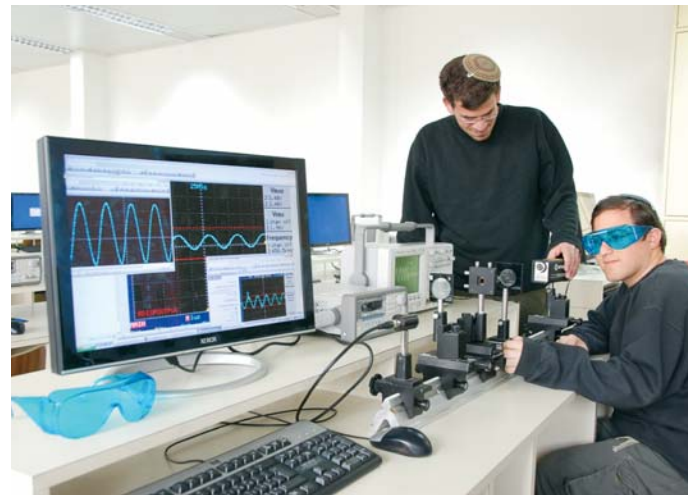


Prof. Engelberg has also recently been appointed Editor-in-Chief of the IEEE Instrumentation and Measurement Magazine, a general interest, peer-reviewed academic publication.



Sohacheski Student Center and Samson Gate

• The **Sohacheski Student Center** and the **Samson Gate** leading to the main entrance of the Lev campus are nearing completion and will be in use for the next academic year. The new building includes an Observation Lookout and the Student Cafeteria as well as lecture halls, meeting rooms and a computer center for students. Meanwhile major renovations are nearing completion in the **Samson Engineering Building**. This was the first academic building erected on the Lev Campus and was completed some 35 years ago. Classrooms have been enlarged and are being equipped with new furniture and state-of-the-art media equipment to enhance the learning experience of the students. In addition, electro-optics laboratories have been refurbished with donations received from the **Glickman Foundation** and from graduates of the Electro-optics Department.



Electro-optics Laboratory

Operation Cast Lead

Although Operation Cast Lead took place recently in Gaza, it was also felt at the Jerusalem College of Technology. Forty-seven Machon Lev and Naveh students and faculty were drafted by Emergency Conscription and others were unable to return home because of the constant firing on the southern communities. JCT initiated a telephone service center for reports and updates on students who were drafted.

Another project “JCT with the Southern Border Settlements” operated through the student website *Baget Net*. Offers of hospitality for families who live in range of the rockets and other ways of helping the families came pouring in from the students as well as from faculty and administrative staff. Several times a year a blood donation drive is held at the Lev - Naveh campus; during the war a special day was organized for donating blood due to the extra shortage expected.

When the students returned from their army service, a committee was formed to help the students with their studies and grant them leniencies in their end of semester exams and papers.



40th Anniversary Contests

Contests in honor of JCT's 40th Anniversary have recently been held at JCT. The contests were initiated by **David Anisman** of Toronto, Canada who donated the cash prizes. For the first contest, students were asked to make suggestions for improvements at JCT. The winners were Shira Metzger who proposed a "pass-it-forward" system for providing free tutoring to students, Noah Rosenthal who suggested a way to improve counseling support for new students and Chaya Konia who recommended offering one-day

seminars at which students can gain a greater understanding of the connection between their academic studies and their practical implementation in the workplace.

Students have shown a great deal of interest and enthusiasm for the contests and all relevant suggestions are being studied to see how they can be implemented at JCT. The second contest, **Focus at 40**, JCT's 40th Anniversary photographic contest inviting students to send in photographs depicting campus life, is now underway.

Laptops for Students of the "Atidim for Industry" Program

Outstanding students from Machon Lev, Machon Naveh & Machon Tal recently received laptops from the Friends of *Atidim (Futures)*, as part of their support for students in the *Atidim for Industry* program. The laptops were given at a festive ceremony which took place on the Lev Campus in Jerusalem.

Atidim for Industry is dedicated to identifying and assisting outstanding young adults from the geographic and social periphery, after completion of their national service, to obtain a high quality academic education at institutions of higher learning and become top professionals to lead businesses and industries in Israel. Aside from the laptops, students receive full tuition scholarships and a monthly living stipend during their four years of study at JCT. Within the framework of the *Atidim for Industry* program, these students will shortly start working eight hours a week in various high-tech companies in Israel whilst studying at JCT.

Prof. Joseph Bodenheimer, President of JCT participated in the ceremony together with heads of JCT's academic departments, **Mr. Amir Yagoda**, Head of the *Atidim for Industry* program and representatives of the companies who have adopted these students including *Pagi Bank*, *El Cielo*, *Atar Plus* and the *Israel Aircraft Corporation*. Representatives of the companies received paper cut certificates to acknowledge their contribution to the professional development of the students.

Mr. Amir Yagoda thanked the companies for adopting these students and JCT for its cooperation and commitment to the program. He also asked the students to see themselves as role models and to be thankful and loyal to the companies. The CEO of El Cielo – **Eyal Shekel**, himself a Machon Lev graduate, said that the students chosen are at a great advantage because of the knowledge and hands-on

experience that they will receive from these companies whilst studying for their degrees.

Chaim Rosenfeld, JCT's Job Placement Officer has expended much time and effort into the success of this program. Recently an additional seven students were adopted by the **Israel Police Force**, which brings the total number of students accepted this year to 20. Since its inception five years ago, fifty-five students have been accepted to the program.



"Atidim for Industry" students with their sponsors, President, Prof. Joseph S. Bodenheimer and JCT Heads of Department.

JCT opens MBA program in Business Administration



The Council for Higher Education approved a new MBA degree program at the Jerusalem College of Technology that will emphasize Jewish ethics and morality. The program opened

in February 2009 at Machon Lev with some 50 students. A similar program for women will also be opening at JCT's Lustig Institute in Ramat Gan. This course is the first of its kind in Israel and is extremely timely. Unethical behavior of investors and bankers has been a major factor in the current global financial crisis.

A room for making business deals and buying shares while implementing the principles of Jewish ethics is being prepared on the Lev - Naveh campus. Students will be able to use money for stock purchases from a special fund provided by **Bank Poalei Agudat Israel** (part of the FIBI Group).

The Head of the MBA program is **Prof. Herzl Fattal**, an accountant who joined the JCT staff three years ago and presently heads the Department of Accounting and Information Systems. "I am very pleased that we have been given the opportunity to offer students a unique program with added value, as it combines ethics and morals from the Jewish aspect with business management in the changing global reality of today," Fattal said.

Conferences

■ The annual National Accounting Conference, organized by the Department of Accounting and Information Systems was held in December at Machon Lev, under the title *Developments and Innovations in Tax Laws and International Taxation - a New Era*. **Mr. Yehuda Nassardishi**, the Director of the Israel Tax Authority was the keynote speaker and his remarks on the effect of the current crisis on tax income were widely publicized in the Israeli media.



From L-R: Mr. Yehuda Nassardishi, Prof. Menachem Steiner (Rector) and Prof. Herzl Fattal

■ Graduates of the Pradler NGO Empowerment Program of the **Pratt Foundation** representing 50 non-profits and NGOs recently took part in a conference entitled *Resource Development in an Era of Crisis* which was held at JCT. (The Pratt Foundation has generously supported JCT's Ethiopians for Engineers Program since its inception ten years ago).



JCT reaches "Quality and Excellence" Final

JCT has reached the final of the **"Yitzhak Rabin z"l National Prize for Quality and Excellence"**. This competition, which until recently was only held amongst Israel's business sector, has recently been expanded by the Civil Service Commission to the public sector. Three evaluators recently visited the campus to judge firsthand how JCT is implementing the principles required to achieve quality and excellence. The Prize will be awarded at a ceremony to be held in May 2009.

JCT is one of the first academic institutions in Israel to adopt the ISO 9001:2008 standard which provides a tried and tested framework for taking a systematic approach to managing the organization's processes providing quality

student services. In so doing JCT is striving to provide its students with the best possible learning experience. So far all administrative departments on the Lev-Naveh campus have achieved the ISO standard. This academic year JCT has started to implement ISO at Machon Tal and Lustig. The implementation of the international quality standards involves internal and external examinations by the Israel Standards Institute.

"The expansion of the quality improvement services to all JCT's institutes is a very important step towards increasing the cooperation between the separate administrative units and thereby improving the service provided to students" says Chaim Beyo, responsible for quality and regulations at JCT.

Up Close and Personal

by Zissie Gitel

When first approached to write a retrospective about the Jerusalem College of Technology (JCT) in honor of its 40th Anniversary celebration, I began trying to recall as much as I could about the progression of events contributing to the expansion of the College. Suddenly I realized what a daunting task it was to assemble all the information, get all the dates correct and give credit where credit is due. The lines began to blur between the different administrations, to the point that I became uncertain exactly who accomplished what and when. It was then that I realized that JCT, though it started as a vision, has actually been an ongoing, uninterrupted cooperative effort of a long line of dedicated individuals all devoted to the success of the College and its graduates. So forgive me for not being extremely specific about dates, times and characters. In such a saga, everyone is the protagonist and everyone deserves praise for contributing to such a success story. JCT is the story of a goal-oriented institution, where, united, the employees, donors, graduates, students and supporting governing bodies encompass one big family.

It was in 1987 that I first interviewed for a position in the Public Relations Department at JCT. Little did I know then how much the College was destined to grow and how many spectacular accomplishments its Founder and first President, Prof. Ze'ev Lev, z"l, and his ardent successors would achieve.

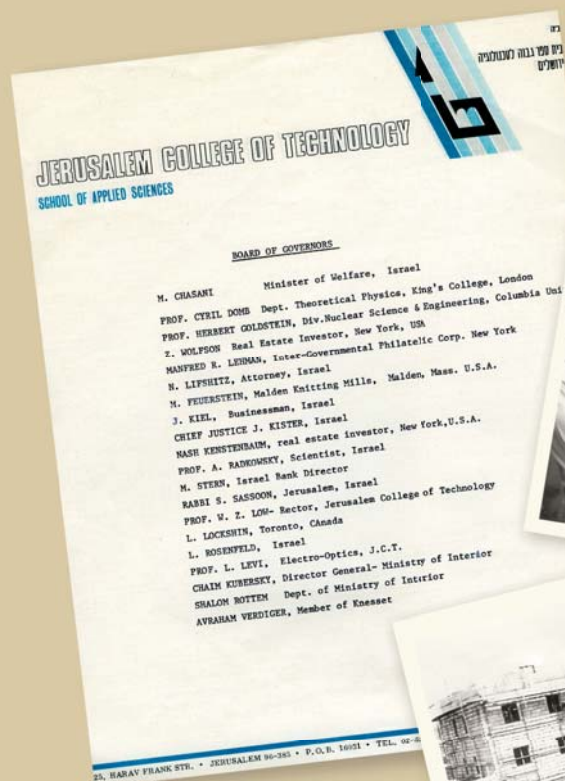
Even during its early stages of development the College had attained a reputation as a leader in the field

of electro-optics. Serious students who would proceed to make their mark in the fields of high technology and contribute to the building and strengthening of the State of Israel gravitated to the College because of its unique blend of science and Torah. It is the story of a dream and its fulfillment beyond all expectations through the devotion and leadership of both lay and rabbinic scholars who set living examples of what can be accomplished if you set your mind and soul to it. Upon its 40th anniversary I would like to recap some of the



outstanding accomplishments at JCT over the past 40 years and pay tribute to many of the key personalities who made this dream come true. And so, JCT, "This is Your Life."

The driving force behind the establishment of



comprised the pioneering class. Courses were given in a small building in Bayit Vegan, Jerusalem. It takes more than students to keep an institution running. Legal counsel was essential to assure the progress and growth of the College, and Prof. Lev was fortunate to find a kindred soul in Adv. Channah Hovav-Meizel,

who, in her stalwart devotion to the College from its very foundation until this day, has provided invaluable assistance in handling legal matters and wise counsel on numerous issues. Without financial assistance the College would never have survived. From its inception JCT has been supported by friends and benefactors who have remained loyal to its cause, who recognized the promise of the school and identified with its goals.

In its formative years the College increased the number of courses of study offered, necessitating, of course, more space, more teachers and dormitory facilities to accommodate its growing student body. Currently the College boasts three campuses, a total student enrollment of some 2700, and over 200 professors, instructors and research scientists. The number of degree courses offered has risen from two to 12, including an MBA program. What a change!

The list of protagonists responsible for the College's success begins with Dr. Yitzhak Ernst Nebenzahl z"l, a former state comptroller of the State of Israel and Prof. Lev's successor as President of the College. Prof. Yehuda Levi, renowned author and expert in both Torah and the field of applied optics, served as Rector. In JCT's early years Prof. Levi laid the groundwork for what would become the most outstanding Applied Optics Department in Israel. From its humble beginnings, the department has increased its scope to include studies in bio-medical instrumentation, defense and security devices, instruments to aid the disabled, food quality studies and a host of other topics crucial to the development of Israel's economy and vital to the world as a whole. In 1990 Prof. Levi retired from his position as Rector to devote time to his writing, teaching and research, leaving a legacy of productivity and excellence.

In 1985, the office of President passed to the capable hands of Mr. Zvi Weinberger, who held the position for eight years. Zvi Weinberger and I were neighbors, and many a time I would be on my way to work to find him walking in the same direction I was driving. We shared many a ride together and became friends as well as associates. Also an expert in physics, Mr. Weinberger carried on the tradition of expanding the College

JCT was Prof. Ze'ev Lev, z"l, who had the foresight to identify the need to supply engineers for Israel's burgeoning economy. No ordinary engineers would these be, but engineers educated in Judaic studies and nurtured by Torah ethics. My first encounter with Prof. Lev occurred on the very first day I began working at JCT, with a telephone conversation that made me shake in my boots, so gruff was the voice and demanding the tone. I later learned what a soft and kind interior that gruff exterior protected. His foremost concern was the success of JCT, and no one could stand in the way of this goal. I remember a later conversation we once had (by then we had become pals) in which he taught me an important lesson in the art of negotiating. Way before the advent of internet search engines he told me that before he ever met with anyone to discuss business, he learned as much about that person as he could. "Study the personality you are set to meet," he told me, "and you'll be in a better position for negotiation." His world renown in scientific and Judaic studies, hard work, innate knowledge of human nature, and determination to gather around him a bevy of similar-minded educators and supporters brought the concept of JCT into reality in 1969.

In addition to Prof. Lev, the initial nuclear JCT faculty included experts in the fields of electro-optics and computer science; the two fields to serve as the foundation for the engineering program at the College. A meager 21 students

both academically and physically. Dormitory buildings, buildings to house scientific research and teaching, and a modern facility to house the Beit Midrash were all added during his term of presidency. Managerial Accounting joined the list of graduate degree programs, and Driver Safety Research became an integral part of JCT's projects. The study of materials and solar energy joined the ever-growing list of pioneering research conducted at the College.

Following upon Mr. Weinberger's success, Prof. Joseph Bodenheimer, who from 1990 to 1993 held the position as Rector of JCT, was chosen to assume the office of President and launched ambitious projects, many of which are currently reaching completion. I had the privilege of working side by side with Joseph Bodenheimer for 12 years and can unconditionally vouch for his tireless efforts and constant concern for maintaining excellence at JCT and furthering the goals and dreams of his mentor, Prof. Lev. For the past 16 years he has stood at the helm of the College. Responsible for its expansion to the Charedi sector and opening the doors of the College to the female population, he has been a pioneering leader in a multitude of areas. During Prof. Bodenheimer's term of office the School of Nursing and Masters Program in Business Administration were founded as was the high school adjunct to JCT. New dormitory buildings were constructed, new research and teaching facilities were built and more space was acquired at an adjoining campus to provide for the expanding student population and its needs.

The Beit Midrash staff, of course, is the guiding light that provides the College with its uniqueness. Rabbi Zalman Nechemia Goldberg, Head of the Yeshiva, has supported the College and its program from its early days and continues to guide the staff in the ethical and spiritual realms. Rabbi Natan Bar-Chaim as Head of the Beit Midrash has also served the College from its early days as a role-model for the students and a source of Talmudic knowledge and guidance. Together with the devoted team of scholars that make up the Beit Midrash staff, many of whom have taken over positions of national significance in the Rabbinic courts in Israel as "dayanim", they provide the students with a firm foundation in the spheres of Jewish values and personal ethics.

There are many unsung heroes behind the scenes that keep the College running on a daily basis. For fear of accidentally omitting anyone, I will simply salute the outstanding staff in all the various departments—academic, rabbinic and lay—over the years. Few people realize what it takes to maintain a well-oiled machine and keep it operating in tip-top condition. Without the help of all the staff, JCT would not have achieved its current rank as one of Israel's leading academic institutions. The governing bodies that determine College policy—the Board of Trustees, the Executive Committee and the Academic Council—are composed

of dozens of members of professionals and laymen who tirelessly labor to assure the excellence of the College programs. No one person can take credit for the magnificent heights the College has reached. It has always been a team effort—one of the reasons I was always proud to count myself as one of its employees.

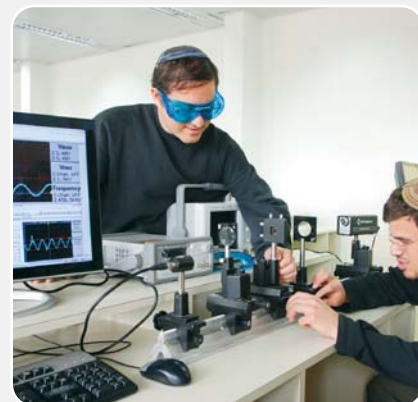
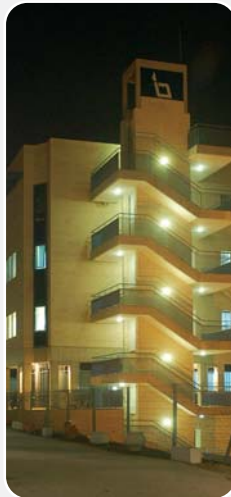
Since tuition and government support provide only a part of the funding for the College programs and expenses, contributions from private individuals complete the backbone of support to keep the College running. It wasn't long before word of the uniqueness of the College began to spread around the world with the subsequent opening of Friends of JCT offices in the U.K., North America, Canada and Australia, garnering support from donors who identified with the College and its goals. Prominent donors to the College, each in his or her own unique way, have contributed to the success of JCT; dormitory buildings, academic buildings, scholarship programs, laboratories—the list goes on and on—would never have been possible without their help. These friends are true partners in fulfilling the dream.

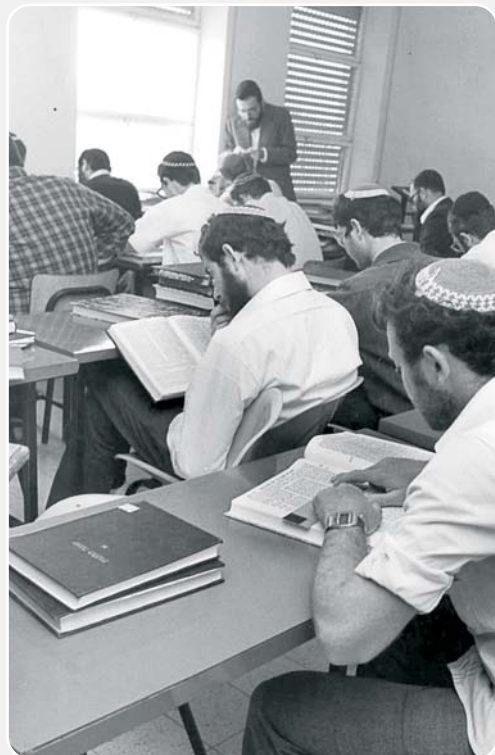
I smile when I think back on the number of employees at JCT when I first began working. The Accounting Department consisted of two or three employees, the Registrar's Office had three employees and the Public Relations Department had four employees. One person took charge of all the purchasing and customs clearing of equipment ordered from abroad. The Personnel Department was a one-man job. Today when I look at the size of the administrative staff it boggles my mind. The growth is commensurate with that of the student body, which has increased dramatically over the past decade. The vision of those in charge of setting school policy and determining what coursework would be needed for the future is largely responsible for the fact that so many students have turned to JCT for their education and training.

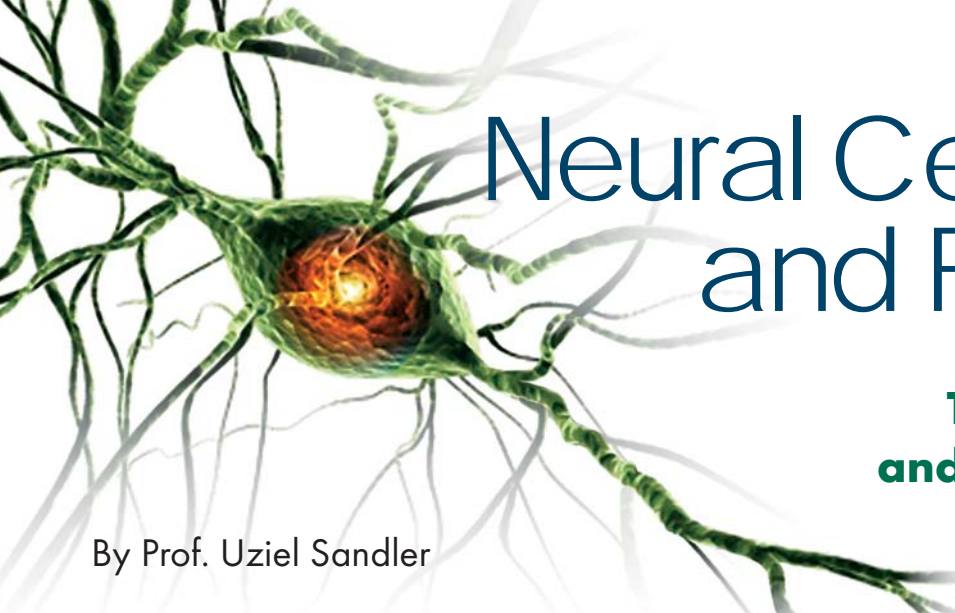
When I visit JCT now, I barely recognize it; so many changes have occurred, so much growth, so many new faces and so many people who are missing and are greatly missed. It no longer resembles the cozy family in which I grew up so many years ago. But, one has to admit that with age come growth and maturity. I am older, JCT is older, we both have changed, but we wouldn't have it any other way.

**Happy 40th birthday, JCT.
May you continue to
grow and prosper!**









Neural Cell Behavior and Fuzzy Logic

The being of neural cells and mathematics of feeling

By Prof. Uziel Sandler

Several theories consider the brain to be a network of neurons that process perception with simple activation functions. Real neurons however are far more intricate. Living beings generate actions of which they are aware. This simple assertion leads to the formation of problems. How, when and why actions are produced? What roles do signals from the brain and the environment play? Why is a given action preferred? What are the differences between aware and unconscious actions? What is the connection between action instability and free choice?

The decision to act depends upon one's recognition of signals, memory and current motivational state. The brain can perform a number of automatic actions simultaneously; for example, control of breathing, heart rhythm, walking, etc. However, the aware part of the brain operates as a whole. We cannot usually attend to more than one task at a time and we can barely perform two tasks at a time. For conscious access, a discontinuous threshold exists. The conscious brain usually generates one dominant action and inhibits non-relevant actions. The primary feature of the brain is its capability to perceive. A key property of perception is the extraordinary ability to integrate many different elements into a unified whole. We perceive specific smells, tastes, colors, shapes, sound, touch and pain. It isn't simple, however, to find a feasible explanation for the integration of many sensory elements into an output reaction unless the signals converge into a single neuron, because other types of integration would easily lead to a loss of specificity.

Many theories consider the brain to be a complex network of neurons, which are approximated as simple elements producing a summation of excitations and generate an output reaction in accordance with simple activation functions. Such an idealization, however, does not appear to reflect the properties of a real neuron. A review of the

literature and results of original experiments have revealed trustworthy evidence that a real neuron makes a prediction of consequences of input signals, transiently changes its own excitability into conformity with this prediction and only after that compares the magnitude of this signal and threshold. A single neuron can learn, a single neuron tries to survive; a single neuron can want, suffer and delight.

Motivation causes actions that lead to goal achievement. Life requires the existence of homeostasis, which is the ability to compensate for deviations from normal conditions. Disturbance of homeostasis results in transient cellular damage or threat of death. Motivational excitations exert similar changes in neuronal states as are observed during necrotic damage, while alterations of neuronal conditions, lead to the arousal of motivations. In addition, artificially induced damage provokes or augments motivation. Elemental motivations are easily induced, more or less selectively, by neuropeptides such as narcotic drugs. Chemically induced motivations are also displayed rather slowly (tens of minutes). Such a slow development of motivation is evidently required for the reorganization of cellular activity. Dissatisfied motivation augments damage of specific neurons and their excitability decreases, while reward inhibits and protects certain brain neurons from damage. Although the protective role of reward means that neuronal damage during motivation is transient, neurons are sometimes irreversibly injured, such as during drug dependence, self-stimulation, stress and redundant mating. We feel drives because we are mortal and consciousness consists of being between life and death and, in the narrow sense, between rest and depression.

An animal acts if it knows how to obtain a constructive result. If it does not, it uses a trial-and-error method and tries to achieve its goal by choosing actions from the set of preferable actions in the given circumstances. Uncertainty

of the behavioral choice correlates with the intensification of the instability of neuronal reactions, which is an inherent property of the active brain. The chaotic behavior of neurons is higher in high neural centers and the neuronal firing pattern is especially irregular during instrumental learning. Neuronal and macroscopic reactions exhibit instabilities similar in amplitude and synchronous in time, so, in many cases, the source of the brain reactions' irregularity can lie in the inconsistency of activity at the single neuron level, rather than in the averaging of activity in the individual neuron. In such cases collaborating between neurons and glial cells may lead to synchronization of neuronal activities.

Which "logic" does the brain use for the description of an environment and for decision-making? Numerous literature sources and original experiments allow us to believe that the capability of perceiving could already take place on a neuron level. So, if we want to develop an adequate mathematical description of neuron information processing, we are, in a certain sense, compelled to search for an apparatus, which could operate with "perceptions" as it does with mathematical objects. Our research has shown that the subjective attitude of the brain to an expected event can be the reason for the advent of the brain's "logic of perception".

A mathematical basis for the "computing of perceptions" was proposed by L. Zadeh almost half a century ago and is known as "fuzzy logic". A real neuron is a complex dynamic system, so for a description of its behavior we need an extension of fuzzy logic on evolutionary processes - the evolution of perceptions. Such a theory called "fuzzy dynamics" has been developed and studied during the last decade and is used to explain how the evolution of perceptions can be calculated.

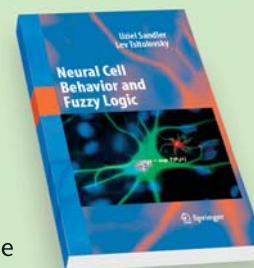
An undoubted advantage of this approach is the ability to use the well-developed apparatus of theoretical physics for the analysis and solution of the equations of dynamics. We have found that the fuzzy dynamics approach to neuron behavior leads to good compatibility with experimental observations and enables the understanding of some basic features of the neuron being. In particular, it predicts strong, sudden, non-random alterations in the neuron's activity. Such alterations are typical for a real neuron's behavior and it has an effect on the macro-behavior of animals. It is well known that even when it knows a good solution to a given problem, an animal tries from time-to-time to find a new solution and if the new solution is worse than the old one the animal returns to its previous behavior. Such a "researcher's instinct" is very beneficial, since it enables the animal to effectively optimize its behavior in continuously changing environmental conditions. It should be emphasized that in fuzzy dynamics such behavior is neither the consequence of

random inner influences of the neural system nor only the result of the sudden changes in environment, but rather a fundamental feature of neurons. It seems very likely that the inner logic of the neuron's behavior is close to fuzzy logic. Since fuzzy logic is easily computerized, it is feasible to design new kinds of artificial neurons: "motivational artificial neurons", which seem to be very promising as elements of the "brain of the feeling robot". Thus, in a "feeling robot", performance of the main task, trial-and-error learning, the aspiration to survive and the "instinct of a researcher" could be naturally combined. If a robot has to act autonomously in a tough and poorly predictable environmental condition, a motivational paradigm will be more effective than the conventional approaches.

Professor Uziel Sandler, Head of the Department of Computational Chemistry and Professor in the Department of Applied Mathematics at JCT, has recently published a book on Neural Cell Behavior and Fuzzy Logic together with Professor Lev E. Tsitolovsky of Bar Ilan University. Through reviews of literature and results from original experiments, Neural Cell Behavior and Fuzzy Logic offers a comprehensive look at these complex systems, supplying trustworthy evidence that neurons can predict the consequences of input signals and transiently change their own excitability to suit. The book also examines how fuzzy logic and the computing of perceptions can be used to provide a theoretical description of real neuron behavior and as a model for the "logic" that the brain uses to describe environments and make decisions. The book was published by Springer Press.

Prof. Sandler is an expert in Nonlinear Properties and Critical Behavior of Condensed Matter, Evolutionary Computations and Fuzzy Sets Theory. Prof. Sandler is the founder of a new approach to Fuzzy Dynamics, the advanced mathematical discipline that describes the evolution of complex systems with uncertainty in their dynamics laws.

Prof. Sandler has published 3 books and more than 70 academic articles in scientific journals. He also serves as a member on several worldwide committees in the above-mentioned fields.



My vision of JCT is for it to become a Torani university: providing all-round higher education for the religious community, not only in the high-tech professions but in the social sciences and humanities as well - a full-fledged vibrant university for religious people”.

This has been **Prof. Alan Stulman**’s aspiration since he arrived at JCT 13 years ago.

In the summer 2004, just before Prof. Ze’ev Lev z”l passed away, Prof. Stulman met him on the campus plaza. They sat together for a very interesting discussion regarding the future of JCT. Prof. Lev shared Prof. Stulman’s vision for JCT. “We must be a religious university; one that will be open for all fields not only in high-tech subjects. We should be the ultimate address for every religious person; we should open a law school, a school of humanities and of social sciences. Our ambition should be to have a study program for everyone who wishes to study any academic field”.

“My vision of JCT is for it to become a Torani university: providing all-round higher education for the religious community”



Prof. Stulman strongly identifies with JCT. Throughout his own life he has followed his belief in the importance of both religious and secular scholarship. He attended Yeshivot while studying for his PhD degree in evening school. He has educated his four children in the way of *Torah with Derech Eretz* and truly believes in this way of life.

Prof. Stulman first arrived in Israel 31 years ago after completing his academic degrees in Operation Management and Applied Statistics, and worked for five years in industry research. He taught at Ben Gurion University where he worked for nine years, after which Prof. Stulman decided to go back to the United States, to the great displeasure of his children, especially of his son Ariel. Prof. Stulman believes there were two miracles that eventually clinched his decision to return to Israel and join JCT. The first was finding a parking place in the middle of Manhattan

right next to the building in which an Aliya fair was taking place. “This was really a sign to go in and see”, explained Prof. Stulman. The fair was already closing, but Prof. Stulman managed to give them his CV. A week later Prof. Stulman received a phone call from Prof. Zeisel, then Rector of JCT, ultimately offering him to head the Accounting Department. At the time, Prof. Stulman was teaching at St. Johns University and Brooklyn College City University of New York. The university had encountered financial difficulties and Prof. Stulman had to drop one of his courses for a semester. The same day he received a phone call from Yeshiva University (YU), offering him to teach the course there. At YU he received a room and desk and as he was getting organized in his new room he had a chat with Dr. Philip Levine. Prof. Stulman asked him if he had heard of Machon Lev, and Dr. Levine said “I am leaving YU to teach there and heard that you will be there too...” This was the second miracle. Prof. Stulman then went home to his wife and said “Two miracles are enough for a decision.” Shortly afterwards he and his family made Aliya directly to JCT.

Prof. Stulman served as Head of the Accounting Department for four years, and was also asked to help create a one year program for overseas students at JCT. The English Speakers Program (ESP) was started with seven students in 1999 and now teaches 40 students a year. Currently, Prof. Stulman is the educational advisor for the ESP and serves as head of the program. Prof. Stulman has been Head of the Department of Industrial Engineering and Management since 2004 and together with his faculty has successfully restructured it to cater for a growing interest in the field.

In 2006, Prof. Stulman was chosen as Head of the Senate and thus became a member of JCT’s Board of Trustees. Prof. Stulman believes in strengthening the Senate as he considers it to be the most important body in an academic institution. “The academic departments are the spearhead of any academic institution; their involvement in what is happening in every aspect of the College is important for JCT’s advancement” concludes Prof. Stulman.

With JCT’s expansion into nursing and life sciences and the opening of an MBA program in Business Administration, the vision shared by Prof. Lev z”l and Prof. Stulman is growing closer each day.

Chagai Naveh, a fourth year student in the Department of Electronic Engineering is part of the *Atidim (Futures) for Industry* program.

“The main reason for choosing Machon Lev was the Atidim for Industry program. Although this program exists in other academic institutions, Machon Lev’s program offers something extra. The Job Placement Unit at JCT works in cooperation with Atidim and helps the students find a suitable company that will adopt him”.

Chagai is the youngest of 5 children and lives in Petach Tikvah. He is married to Ora, a fellow student at Machon Tal. He studied at Kerem B’Yavneh Yeshiva as part of the Hesder program and served in the Nachal Unit of the IDF before coming to Machon Lev. At first Chagai hadn’t planned to study for a degree but wanted to do a course for technicians. However that course never opened and it was then that he noticed an advertisement for the Atidim program.



During his first year at Machon Lev, he was adopted by Falcon Technologies Inc, a young, dynamic company which specializes in developing and constructing technological and industrial projects. Chagai received a laptop, a four-year full tuition scholarship and a monthly stipend and in return has to work 25 hours a month for the company. The company ensures that his time working there does not affect his studies.

“From the start the projects that were given to me to work on were ones that I could learn practical implementations from, relating to electronics. I learned to use electronic wiring circles and weld components to electronic cards. During the entire time my supervisors and co-workers would explain to me the processes involved.

The company provides part of the operating system for the electronic security fences being built throughout Israel. Chagai was sent to work on them

and in so doing gained much experience with both advanced technological systems and ways of creative thinking.

Last year Chagai was introduced to one of the larger projects of Falcon: a product which they supply to many airports around the world. He was given the task of programming a novel industrial control system and thus from the instructions given regarding the control system he learned other aspects of programming; information and experience he would not have gained from his studies alone. Once he had finished programming the new system Chagai was sent to Luxemburg to install it and to adapt it to the

“Machon Lev’s program offers something extra. The Job Placement Unit at JCT works in cooperation with Atidim and helps the students find a suitable company that will adopt him”

client’s requirements. Since then the system has been installed in many other airports including Ben Gurion Airport near Tel Aviv.

Chagai is now in his final year of studies and for his final assignment he is working on a project for one of Falcon’s biggest clients, developing a control system for emergency lighting that meets the requirements of the highest building standards.

Besides the professional and practical experience that Chagai has benefitted from, Atidim for Industry has given him financial support throughout the entire time of his studies. “The financial support during my studies has been very important to me since it has enabled me to pursue my studies with complete devotion.”

Chagai hopes to continue working at Falcon when he graduates and plans to continue his studies for a Masters degree at Machon Lev.

IN GREED WE TRUST?!



In the Long-term – Is “Short-termism” either Ethical or Efficient?

By Dr. Avi Kay

We are currently in the midst of the most severe and widespread economic crisis since the Great Depression of the 1930s. The initial financial earthquake that rumbled through the mortgage markets in the United States in 2007, subsequently led to an economic tsunami which has swept away not only many veteran and seemingly sterling financial institutions; but also left wide sectors of the global economy in dire straights. Not surprisingly, the global economic crisis has also generated a flood of analyses regarding the factors which contributed to the emergence of the crisis and what the crisis may tell us about the contemporary global economic system.

Only recently, the free market system had been heralded as having vanquished “inferior” competing economic systems (i.e. the “controlled economies” of the nations which were in the sphere of the former Soviet Union and the “semi-socialist” economies in Western and Northern Europe), while leading to a new level of comfort and prosperity for hundreds of millions across the globe. However, in the wake of the current crisis, there have been increasing calls to re-examine the characteristics and consequences of the “free-market system” upon which the contemporary global economy rests. Central to this re-assessment has been an examination of the ethical timbre of the system and many of those who are at its helm. This piece will address some of the ethical and

economic lessons which may be derived from the basis of the current economic crisis.

In the fall of 2007, market analyst Charles Green suggested that “Western capitalism is fighting a form of business cancer. and the most virulent form of it is short-termism.”¹ Cancer is – of course – one’s body attacking oneself, as certain cells in the body mutate in a manner detrimental to the overall health and functioning of the individual. An initial analysis of the current crisis indicates that the prognosis that Green offered is not only correct – but an inevitable outcome of the behavior of those at the helm of the free-market system over the last decades.

The catalyst – if not the cause – of the current economic morass is a malady called “short-termism.” For nearly thirty years both anecdotal information and economic analyses point to a new, collapsed time-frame by which people measure their economic progress and that of the economy on the whole. Reviewing the manner in which American companies dealt with the pressures of economic downturns in the post-World War II period, Glenn Harrison noted that there seems to be a clear and steady progression toward economic and organizational arrangements which address the short-term needs of the firm – and more importantly – those who stand at their helm.² Harrison noted that American industry – and those at its helm – have fallen captive to the whims of what he termed “impatient capital” and its yearning for constant change and rapid returns.

Due to the nature of the global economy and its transient capital, this development led to similar – if less pronounced – changes in Europe and in the Far East. One indication of the above can be seen in the fact that from 1983-1998 the average length of time that stock shares were held in the United States and the United Kingdom went down by 60%. Similarly, the average terms of service of executives in publicly traded companies also went down dramatically – as an increasing number of executives seemed to be unable to feed the appetites of “impatient capital.”³

This “short-termism” was evident also in the dynamics of a previous ethical and financial crisis which occurred in the late 1980s arising from insider trading and a series of hostile

takeovers in the 1980s. In a central scene of the movie “Wall Street” which portrayed those events, one of the “masters” of Wall Street (played by Michael Douglas) makes a dramatic pitch to the stockholders of a company that he has set out to buy and dismantle. Following a heartfelt appeal by the current directors of the company to remain faithful to the values that helped create the now struggling firm, Douglas’ character, Gordon Gekko, called on the stockholders to realize that the value of hard work and sacrifice were not suitable to the challenges of the modern economy. Rather, he suggests to his audience:

“The point is, ladies and gentleman, that greed, for lack of a better word, is good. Greed is right, greed works. Greed clarifies, cuts through, and captures the essence of the evolutionary spirit. Greed, in all of its forms: greed for life, for money, for love and for knowledge has marked the upward surge of mankind.”

“Greed” – of course – may sound like a harsh word for what led up to this current economic crisis. However, it is clear that the last decades have been marked by the acceptance – if not celebration – of material advancement, if not opulence. It is a slippery slope between the celebration of materialism and the acceptance greed.

In the portion of *Yitro*, Moses is told to choose judges to help him lead the people and inculcate them with Torah. He is not told to refrain from choosing the wealthy but

“The human instinct for self-improvement and achievement can be the root of both legitimate personal gain and a type of unjust gain that can act as a “cancer” leading to the destruction of healthy parts of the body (or in this case – the economy).”

rather to choose those “hating unjust gain” (Exodus, 18:21). Interestingly, the thin line between acting vigorously to gain legitimate economic advancement and greed is present in the very term used to express “unjust gain” in the above verse, since the Hebrew root ב.צ.ע. is the root for “greed” and “achiever” or “go-getter” (ביצועיסט). Thus, Gordon Gekko may have gotten it partially right. The human instinct for self-improvement and achievement can be the root of both legitimate personal gain and a type of unjust gain that can act as a “cancer” leading to the destruction of healthy parts of the body (or in this case – the economy).

“Short-termism” and the Labor Market

Over the last thirty years, “short-termism” has led to a series of organizational and financial trends which seemed to confound the “moral compass” of many business leaders. First, from 1970 onward, organizations have increasingly pursued business arrangements that take what has been called the “low road” to profitability.⁴ Furthermore top management have sought to show profitability not through increased efficiency and long-term investment in infrastructure, but rather by cheapening labor costs through the reduction of real wages, the erosion of employees’ rights and the increased reliance on outsourcing and off-shoring. Similarly, research has also shown that from the 1980s onward, organizations have increasingly engaged in “downsizing”, not as a remedy to economic downturns – but as an elixir to register on the books savings in production to meet the short-term economic

expectations of analysts (and in their wake, investors).

Of course, there were certain labor costs that not only were not reduced over this time period but grew in an exponential fashion. We are talking about the pay of those very executives who acted in a vigorous fashion to reduce overall labor costs. Significantly, much of executive compensation was in the form of stock options and bonuses which encouraged concern for

“short-term” corporate performance.

An examination of changes in executive pay in publicly traded companies in the United States from 1993-2003 indicated that executive pay grew far beyond what could have been expected by virtue of growth in size or performance of the firms examined.⁵ Indeed, the percentage of aggregate earnings of the companies examined which went to executive pay doubled during this time period from 5% to 10%. Accordingly, the divergence between executive pay and the average wage in the United States grew from a ratio of 71 to 1 in 1989 to 344 to 1 in 2007.⁶ The dynamics of executive pay in corporations in Europe and Israel were similar, if less dramatic.

All of the above occurred while these executives reduced

other labor costs in order to safeguard, albeit unsuccessfully, the profitability of the firm. However, the reduction of labor costs, the swift turnover among top executives and the pressures to show quick earnings and organizational change can all be seen to have contributed to the “short-term” perspective of these executives. Meanwhile their chief concern was to get “their cut” as quickly as possible since their bonuses were based on immediate company figures and not on the long-term effect of the above policies on the firm and its stakeholders (e.g. employees). Who among these executives would have passed the test in Parshat Yitro with regard to “hating unjust gain?”

“Short-termism” and the Financial Market

Over the last thirty years the financial markets have also evolved in a manner which favored immediate gain over long-term growth and sustainability of the system. The ability to achieve swift and considerable material gain was at the heart of various financial ethical lacunas such as (previously mentioned) insider trading scandals, Enron’s fictional “special purpose entities” (for “self-trading”) and accounting scandals at Worldcom. The above type of swift, short-term material gain was also at the heart of other strictly legal – and innovative – financial arrangements which have had serious deleterious effects on the health of the financial markets.

First, Michael Jensen (often seen as the “father of private equity”) stated in 2007 that the increased prevalence of “front-end” deals, in which dealers get their fees more on the basis of the quantity of the deals that they make and on the money changing hands rather than on the basis of their quality, will wreak havoc on the markets. Jensen noted that “...these fees are going to end up reducing the productivity of the model... People are doing this out of some short-run focus on increasing revenues.”⁷ The upshot of the above is that any value created by these deals have proven to be both transient and of benefit to very few.

The mortgage markets also evolved in a manner which encouraged the creation of mechanisms with a variety of separate benefactors above and beyond those engaged in simple loan-making and loan-holding. Here too, a great deal of money was made “up-front” by turning around the various aspects of the mortgage process – with little concern for the actual potential value (or harm) to the banks and to homeowners themselves. All seemed to hope that “short-term” gain associated with the risks taken would be justified by the “long-term” profit to be made. Unfortunately, the long-term never arrived for many, since the risk involved in the process accrued as it passed from hand-to-hand in the mortgage chain. These legal financial mechanisms can be seen as arising from

the same source as the appetites of Bernard Madoff's clients for the services that he offered: swift and significant profits from their investments. It seems that many were willing to sacrifice long-term security (if not judgment) for short-term gains. Indeed, as the late economist Herbert Stein is quoted as saying: "If it looks too good to last, it probably won't."

Here too, one might consider how many of the actors involved in the crafting of these new and creative financial mechanisms might get a "passing grade" on the Parshat Yitro test of "hating unjust gain"? Just as a compass is rendered useless when a magnet is put too close to it, so it seems that one's "moral compass" may be significantly impaired when the time-frame considered is – itself – too close. Thus, it seems that contemporary concern for "sustainable planning" motivated by a concern for the long-term health of the environment may be equally relevant when speaking about the long-term health of the economy. Indeed, it seems that it is only through organizational and financial planning, which

takes a long-term perspective, that we can arrive at a market system that is both sustainable and cognizant of the rights and welfare of those who are dependent on it; that is to say – all of us. ■

- 1 Green, Charles. [The Cancer of Short-Term Thinking](#).
- 2 Harrison, B. [Lean and Mean](#).
- 3 Harris, M. [America Now](#).
- 4 Leana, C. and Rousseu, D.M. [Relational Wealth](#)
- 5 Bebchuk, L. and Grinstein, Y. [The Growth of Executive Pay](#).
- 6 Landy, Heather. [Behind the Big Paydays](#)
- 7 Morgenson, G. [It's Just a Matter of Equity](#)

Dr. Avi Kay is the Head of the Department of Technology Marketing and Management and Director of the Schuman Center for Entrepreneurship. Kay, who was born in Detroit in 1958, made aliya in 1981 and resides in Jerusalem. He is married to Hedva, an architect, and has three children .

New President for JCT

Prof. Noah (Thierry) Dana-Picard has been appointed by the Board of Trustees to become the fifth President of the Jerusalem College of Technology. Prof. Dana-Picard will take over on October 1, 2009 from Prof. Joseph Bodenheimer, who has been JCT's President for the past 16 years.

55 year old Prof. Dana-Picard has been at JCT since 1991 and is Head of the Applied Mathematics Department. He made Aliya from France in 1984 and lives in Pisgat Ze'ev. He has four children, three of them already married.

Prof. Dana-Picard holds two PhD's; the first from Nice University, France and the second from Bar Ilan University. Following the completion of his PhD at Bar Ilan, he did his Post-Doctoral studies at Ben Gurion University. He has published numerous articles in Algebra, Geometry and Mathematics Education.

In addition to his position at JCT, he also sits on the review board of several prestigious journals and is an advisor and a member of the teaching staff of several academic institutions in Israel, including the Weizmann Institute and Haifa University.

Prof. Dana-Picard personifies the combination of Torah and science with strong leadership qualities. As well as educating the next generation of engineers in the field of mathematics, he regularly gives Torah classes in the Jerusalem area.



Graduate News

Insurance Companies hire Graduates

The **Migdal** and **Menorah** Insurance Companies recently hired a group of 20 graduates from JCT's Lustig Institute. As part of greater employer openness to employee's religious needs, the two insurance companies agreed to provide a suitable environment that is in harmony with the students' religious convictions. The women hold degrees in Computer Programming and Software Engineering.

JCT's Job Placement Department

Unfortunately, the current global financial crisis is affecting JCT's graduates too. Quite a number have recently lost their jobs and have turned to JCT's **Job Placement Department** to help them find new positions. The department is making tremendous efforts to help these graduates – such as organizing subsidized retraining courses, arranging tours of high-tech companies and proactive canvassing of potential employers.

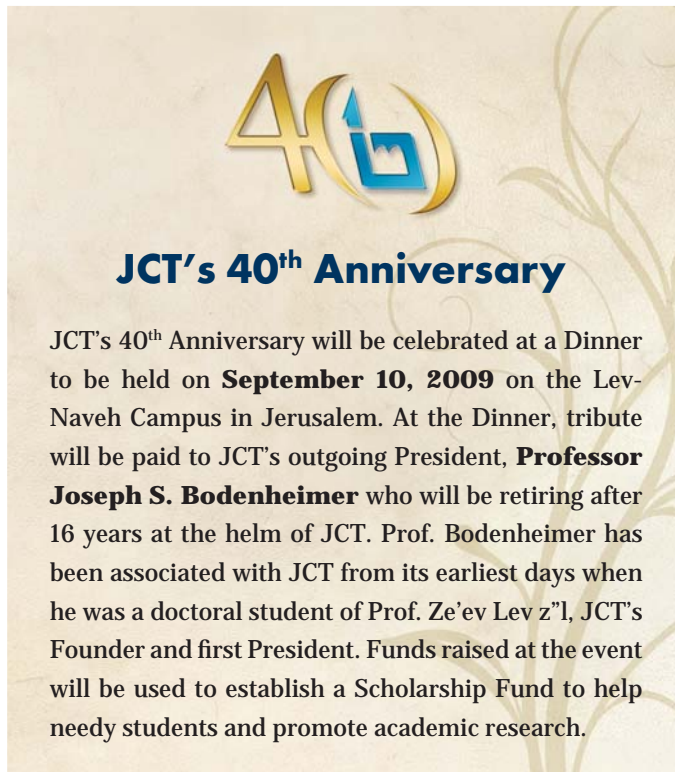
Navy Commander's Prize awarded to Four Graduates

In December 2008, the Israeli Navy held its annual event at the Haifa Congress Center where the Navy's Chief Commander, Admiral Eliezer Marom awarded prizes of excellence to sailors from the Navy's Technology Branch. Amongst the winners were four JCT graduates.

Lieutenant Colonel Shmuel Ben Ezra, Major Elad Nissan and Captain Shai Tau won the Prize for Best Navy Practical Research Project and Major Ben Milgrom won the Prize for Creative Thinking, all in the field of Electro-optics. The four

serve in the Navy Unit for Development of War Systems.

JCT graduates serving in the Navy are very successful and their contribution to its technological strength is highly evident. Thirteen Machon Lev graduates currently serve in the Navy's Electro-optics division. During the award ceremony Admiral Marom remarked on the large number of religious people receiving prizes and then with a smile added, "They must be graduates of Machon Lev!"



Major Ben Milgrom receiving his prize at the ceremony.



Global News

Chicago

Reuven Surkis, Vice President for Development and External Affairs represented JCT at the award ceremony of the sixth annual **Jerusalem Science Contest** that was held in March. The Jerusalem Science Contest is a joint program of the *Martin and Gertrude Walder Science Laboratory and Learning Center of the Foundation for Learning and Development* established by **Dr. Joseph Walder**, and JCT. The Jerusalem Science Contest is a nationally acclaimed competition open to all juniors and seniors attending Jewish high schools nationwide. The theme of this year's competition was *Electromagnetic and Ionizing Radiation*. Dr. Walder spoke at the ceremony of the importance of Torah and science for today. Rabbi Heschy Weiner, the Foundation's dynamic director emceed the ceremony.

First prize winner was **Gabriella Elkaim**, a senior at the Ida Crown Jewish Academy, Chicago who received \$1,000 and a four-year tuition scholarship at JCT's Machon Tal. Gabriella is extremely excited to have won the scholarship as JCT was at the top of her list of post high school institutions to attend. She credits the Jerusalem Science Contest with providing her the motivation to attain her goal.



From L-R: Dr. Joseph Walder, Chairman, Foundation for Learning and Development; Mr. Reuven Surkis, Vice President for Development and External Affairs, JCT; Dr. Arthur Friedman, Curriculum Lecturer; Rabbi Heschel Weiner, Director, Walder Science Center; Eitan Zinberg, Second Prize winner; Gabriella Elkaim, First Prize winner

Melbourne

Rabbi David Stav was guest lecturer at this year's *Hans Bachrach Memorial Oration* held in Melbourne, Australia in February. Rabbi Stav spoke on *Halachic Challenges in a Jewish State - Jewish Education: Conversion, Marriage and Divorce* at the annual event, jointly sponsored by JCT and the Australia/Israel Jewish Affairs Council. **Mr. Reuven Surkis** spoke on behalf of the College and expressed his appreciation to the **Bachrach family** for their many years of support for the Jerusalem College of Technology.



Rabbi David Stav and Mr. Reuven Surkis at the Oration

IN MEMORIAM

It is with great sadness that JCT has learned of the recent passing of several long-time friends and supporters of the College.

E. Billi Ivry z"l of New York was a supporter of the College providing generous scholarship support for Ethiopian students and was the sponsor of an annual essay contest on Jewish Ethics.

Dr. David Medved z"l of Jerusalem was associated with JCT for 25 years. In 1999, Mr. Medved was awarded an Honorary Fellowship and was a member of the President's Council.

Sidney Corob z"l of London was a supporter of JCT since he became involved with the Marom Road Safety Project in the 1980s. His wife, Elizabeth continues his close association and support of JCT.

Betty Kaplan z"l of Jerusalem, who together with her husband Ray, was a founding member of JCT's President's Council. The Kaplans have been instrumental in enabling students in financial need to study at JCT through the Yad Kenny Fund.

Richard Pratt z"l of Melbourne, was a supporter of JCT's Ethiopians for Engineers Program since its inception ten years ago.

On behalf of the students, faculty, graduates and administration of the Jerusalem College of Technology we convey our heartfelt condolences to their families. תג צ.ב.ה



S A V E T H E D A T E !

JCT's Celebratory Event in honor of its 40th Anniversary
and a Farewell Tribute to outgoing President Joseph S. Bodenheimer

**Thursday, 21st Elul 5769,
10th September 2009 at 7:00 p.m.**

at JCT's Machon Lev Campus, Givat Mordechai, Jerusalem

Proceeds from the event will be used to establish
the Prof. Joseph S. Bodenheimer Fund
for Student Scholarships and Faculty Research

For tickets and more information,
please contact Rosalind Elbaum, Director of External Affairs,
email: elbaum@jct.ac.il or call: 972-2-6751022

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