Foreword from the President

It is hard to believe that a year has gone by since the last Board of Governors meeting here in Haifa. A year with so much turmoil and uncertainty, but at the same time a year of continued excellence and leadership by the Technion.

Not long after we met last year, on July 12th 2006, two IDF reservists were kidnapped by the Hezbollah and three more were killed while carrying out routine assignments on Israel's territory near the Lebanese border. This incident sparked the Second Lebanon War. From that point onward, for 34 days, major Northern Israeli cities and villages, Haifa being the largest, suffered massive deadly Hezbollah rocket attacks. No guidance was given to Technion as to how to behave during this difficult period. The Technion administration decided to close the campus for a week in order not to endanger the staff and the students and to prepare the campus for activity during an emergency situation. On July 23, 2006 the Technion was reopened in order to allow us to resume the examination period and to continue with registration for the next academic year. With this step we also wanted to maintain a sense of normalcy in these difficult times and to set an example that we must continue with our important work despite the attacks against us. This has always been the essence of the Israeli existence and in this respect, this war was not different. About 70% of our staff responded to the call to return to work, despite the daily rocket attacks and despite the fact that they were not obliged to do so and their salaries were guaranteed even if they stayed home. This demonstration of duty and responsibility by our staff was very impressive.

The fate of the two reserve soldiers taken by the Hezbollah is still unknown and we pray that they are alive and well, and treated humanely by their captors. One of the soldiers is Ehud Goldwassser who is a graduate student at the Technion together with his wife Karnit, also our graduate student.

Around 1,200 Technion students were called for reserve service when the war started in order to help defend our country. I will later detail the great efforts made by the Technion to ensure their smooth return to the classroom.

I am extremely proud of the way all the people associated with the Technion conducted themselves during this difficult summer – the students, the faculty and employees of the Technion.

Due to the war we had to postpone the opening of the new academic year by two weeks. In spite of the war, this year we have nearly 10% more new undergraduate students then last year. We believe that this statement of confidence by the incoming students is due to our very prominent standing amongst universities in Israel and abroad as well as the clear preference for Technion graduates by most high-tech companies and other industries in Israel.

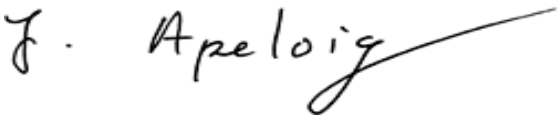
Unfortunately, this does not conclude the difficulties of this year. Immediately after Passover, on April 15th, a national student strike was declared in protest against the establishment of a committee that was formed by the government (the Shochat Committee) to examine the situation of higher education in Israel, including tuition fees. The strike lasted for six weeks and studies were resumed only after Shavuot, on May 27th. As a result, we extended the academic year by four weeks and it will end on August 2, leaving only a very short summer break for both students and faculty members.

Despite all the difficulties, the Technion has made great strides forward this year, including the launching of a new major interdisciplinary research Center – The Lorry I. Lokey Center for Life Sciences and Engineering, the landmark donation of Irwin and Joan Jacobs to our Graduate School and the opening of the Alfred Mann Institute for Biomedical Development. These and other important academic developments are detailed in this report.

I wish to take this opportunity to convey our sincere gratitude to all of you, our friends both in Israel and abroad, who stand by us through good and bad times and whose support is the most valuable asset we have. This support, both moral and financial, has been especially important this year. In fact, this past year has been a record year for the Technion in terms of gifts and commitments made. *Nearly $250 million were raised in actual donations and commitments.* This sum is unparallel in Technion and Israeli academic history. This achievement is because of you and your commitment to the Technion. You are all our "rock" of support, especially during these stormy and turbulent times, and I am happy to present you with this report and show you the great strides we have made at the Technion this year.

I look forward to seeing all of you in just a few weeks here in Haifa.

Sincerely,



Professor Yitzhak Apeloig
President

The National Scene

The Political Arena

On July 12th 2006 Hezbollah started firing Katyusha rockets and mortars at the Israeli border as a diversion while another Hezbollah unit crossed the border, kidnapped two Israeli soldiers, killing three others. Israeli troops attempted to rescue the abducted soldiers and five more soldiers were killed in this attempt. This incident sparked what is now known as the Second Lebanon War. The fate of the two abducted soldiers, Ehud Goldwasser – a Technion graduate student, and Eldad Regev is still unknown and the Hezbollah has yet to provide any sign of life from the two.

Following the abduction, Israel responded with massive air strikes and artillery fire on targets in Lebanon, and a ground penetration into Southern Lebanon. All this, while Hezbollah was firing Katyusha rockets at Northern cities such as Nahariya, Zafed, Tiberias, Afula, Karmiel, Maalot, Kiryat Shmona, Akko and Haifa. The first rockets landed in Haifa on July 17th and on the first attack killed eight railway workers working in the train depot. The rocket attacks continued relentlessly until the last day and in fact the most massive rocket attack on Haifa took place on the last day of the war, just before the cease fire went into effect. The Hezbollah fired more than 4,000 rockets at Northern Israel and more than 100 rockets landed in Haifa. Haifa and Technion were under massive attack for the first time in their history. One million Israelis had to stay near bomb shelters or security rooms and 250,000 civilians were evacuated from the North of Israel and temporarily relocated in other parts of the country. Much of the economic activity in the North of Israel became paralyzed, and many work places closed down.

When the cease fire went into effect on August 14th the costs of the war became apparent: 119 Israeli soldiers lost their lives, 43 civilians were killed, the location and condition of the two abducted soldiers is still unknown, the war cost an estimated at $5.3 billion and Israel lost 1.5% of its GDP, and Israeli forests are expected to recover from war fires only in 60 years. This is just a

sample of what the real cost of the war is. In fact, the political arena in Israel is still reeling from this war and now our politicians are trying to shift the blame.

After the war there was a great deal of criticism toward the government, and especially the Prime Minister Ehud Olmert, in respect to the way the war was managed, as well as to home front issues such as the supply of necessities to frontline civilian populations, emergency civilian mechanisms which were not meeting the increasing demand, etc. The public demand that Ehud Olmert appoint a Supreme Court Commission of inquiry was rejected. However, after several incarnations the Winograd Commission (chaired by retired judge Eliyahu Winograd) to investigate and draw conclusions from the proceedings of the Second Lebanon War was established. The Winograd Commission has more or less the same mandate as a state commission except that its members were appointed by the government and not the Supreme Court and its recommendations, especially those asking for resignations; do not carry the same legal weight.

The Chief of Staff of the IDF Dan Halutz resigned in January 2007 following the critical report of former IDF Chief of Staff, Dan Shomron, regarding his and the high command of IDF performance of the IDF during the war.

The Winograd Commission submitted an interim report on April 30th, 2007. The core of the interim report is a detailed examination of the decisions and the decision-making process of senior political and military figures concerning the decision to go to war at the wake of the abduction of the two soldiers on the morning of July 12th, 2007 and what followed on the first days of the war.

The report found that the Prime Minister bears supreme and comprehensive responsibility for the failures in the initial decisions concerning the war. This responsibility stems from both his position and from his behavior, as he initiated and led the decisions which were taken.

The Minister of Defense was strongly criticized for not having the knowledge or experience in military, political or governmental matters and did not attempt

to educate himself in these matters after he was nominated to this important position. Despite these serious gaps, he made his decisions during this period without systemic consultations with experienced political and professional experts, including outside the security establishment.

The Commission also strongly criticized the functioning of the Chief of Staff of the IDF, Dan Halutz. The report continues with a detailed review of the failures. As expected, the publication of the interim report further undermined the stability of Olmert's government.

Besides the effects as a result of the war, the political arena is also being rocked by a series of investigations of improper behavior by leading figures and politicians.

In July 2006 it was made public that the Israeli President, Moshe Katsav, is suspected in several incidents of rape and other counts of improper behavior. As a result, the President of the State of Israel has taken a three month absence approved by the Israeli Knesset, and his duties are now carried out by the Speaker of the Knesset Mrs. Dalia Itzik.

The Prime Minister himself is currently facing allegations of nepotism, deception in purchasing his Jerusalem home and others.

Finance Minister Abraham Hirchson is suspected in several instances of embezzlement of funds from several non-profit organizations, including The March of the Living and the Yuvalim pension fund. At the end of April, Hirchson suspended himself and the Prime Minister now is the acting Finance Minister.

All of the above mentioned scandals are weakening the government and its authority.

Israel Economy in 2006

Amazing as it may sound in light of the war and the political turmoil described above, in general, this was an excellent year for the Israeli economy. Israel recorded its third straight year of 5% GDP growth in 2006, despite the 34-day Lebanon War II that rained 4,000 rockets on northern Israel and

curtailed economic activity. Growth slowed in the second half of 2006, owing to the war, but strongly recovered later in the year. GDP rose by 5.1%, compared with 5.2% in 2004 and 4.8% in 2004. Per capita GDP rose by 3.2%. Recently the Bank of Israel revised upward its 2007 forecast, predicting a fourth straight year of 5% GDP growth.

Israel's surprisingly resilient economy outpaced the average 3.2% GDP growth rate of the 30 OECD countries by more than half, in 2006. Business-sector GDP grew by 6.4%. Leading the business-sector was the remarkable 23.5% (!) growth in high-technology industrial output. The economy thus solidified its recovery from the 2001 - 2003 recessions, which saw declining GDP and rising unemployment.

The rate of unemployment has now declined from 10.4% of the labor force in 2004 to 9.0% in 2005 and 8.4% in 2006 and to 7.5% in January 2007, the lowest rate in a decade.

Immigration continued at low levels, amounting to some 20,000 in 2006, similar to 2005's levels. Population growth, at 2%, did not yet reflect Israel's post-Lebanon War baby boom, which will lead to a 35% rise in births among the Jewish population in mid 2007.

The strong economic growth boosted tax revenues and helped the government slash its budget deficit to 1.4% of GDP, compared with 2.4% in 2005 and 4.2% in 2004.

On the demand side, economic growth was driven in a balanced manner by growth in private consumption (4.8%), investment in fixed assets (6.4%) and exports (4.9%). Both public consumption and imports grew more slowly than the overall economy - 3.3%, and 3.1%, respectively. Only the construction industry failed to record strong growth.

In 2006, Israel experienced deflation, as the Consumer Price Index actually declined slightly. This was in part a result of an unprecedented 8.2% appreciation in the shekel-dollar exchange rates, which lowered import prices and reduced dollar-linked prices, mainly rents and apartments. Partly as a result, the Bank of Israel aggressively lowered interest rates, in order to achieve

its annual inflation target of 1-3%. *Central bank interest rates in Israel, at 3.75%, are now 1.5% lower than those in the United States (again, unprecedented in Israel's history!* Despite this, the shekel-dollar exchange rates dropped below NIS 4.0 per dollar in May 2007, lowest since Dec. 30, 2000, causing major concern for leading Israeli exporters.

Last year was a record year in inflow of foreign investment into Israel, a total of $22.4 billion. This included Warren Buffett's $4 billion acquisition of 80% of Iskar, Galilee-based Israeli cutting blade company. According to the IVC Research Center, 76 Israeli companies were acquired in 2006, for the total sum of $10.6 billion, four times higher than in 2005.

Partly as a result, Israel's Balance of Payments had a record year in 2006, with a $7.4 billion *surplus* on current account, driven by an export surplus in services of $4.5 billion, an import surplus of $3.6 billion in goods, and a net $6.5 billion inflow in transfers and interest. The current account surplus was $4.3 billion in 2005 and $2.9 billion in 2004.

Israel's largest 25 companies, comprising the Tel Aviv Stock Exchange (TASE) "25" Index, have tripled their pre-tax profits since the recovery began in 2003. The TASE 25 Stock Index topped the 1,000 level in early 2007, reaching record levels, and recording a 5.8% rise during 2006. In 2007, this continued with the TASE 25 Index rising by an additional 14.3% until the end of April.

One result of the outstanding performance of Israel's economy over the last years is the recent acceptance of Israel to the "OCED Club" which includes the thirty leading world economies.

The Status of Higher Education

Following the massive cuts in the budget of higher education by the government, amounting to nearly 25% over the last 5 years, all university presidents declared last September that they will not be able to open the 2006/7 academic year. The government responded by establishing the Shochat Committee in October 2006, headed by former finance minister Avraham

"Baiga" Shochat, (Technion alumni and recipient of an Honorary Doctorate from the Technion), to examine the future of higher education. The committee was established by the Prime Minister, the Minister of Education and the Minister of Finance and its members are: the Education Minister (and Head of the Council for Higher Education) Prof. Yuli Tamir, the chairman of the Planning and Budgeting Committee (VATAT) Prof. Shlomo Grossman, the representative of the Prime Minister's Office Prof. Manuel Trajtenberg, the President of the Israel Academy of Sciences and Humanities Prof. Menahem Yaari, the Director of the Budget Division at the Treasury Kobi Haber, and two public figures: Distinguished Prof. Jacob Ziv (Technion faculty member) and Prof. Reuben Gronau.

Promised that the Shochat committee will recommend significant increases in the government budgeting of the universities, the university presidents agreed to open the academic year after VATAT received a small additional budget for the 2006/7 academic year. The Shochat committee established 4 sub-committees to deal with the following issues: (1). creating mechanisms which encourage academic research and teaching and implementing a merit-based pay scale for university faculty; (2). setting new tuition and student support policy; (3). Suggesting a research policy, including identifying new resources, and dealing with the "brain drain" of researchers leaving Israel for better-funded institutions abroad; (4). division of functions and roles between universities and colleges and a more equal spread of academic institutions between the center of Israel and the peripheral areas. Each sub-committee has a representative from one of the universities. I am the representative in the sub-committee dealing with the encouragement of academic excellence in research and teaching, and differential pay for faculty members.

All university Presidents strongly believe that the establishment of the Shochat Committee is a crucial and important step in changing the negative direction in which higher education in Israel was moving in the last 6 years and in placing higher education as a high priority on the national agenda.

Unfortunately, there is a great deal of criticism of the committee from the students as well from the faculty unions. As I mentioned in my foreword to this report, the students from all over Israel held a strike for nearly six weeks demanding to dismantle the Shochat Committee. This demand was rejected by the government.

The Shochat Committee is expected to give its final report in June 2007. I hope that all its recommendations will be adopted by the government and will be successfully implemented in order for us to reform and strengthen the Higher Education system in Israel so that it can meet the challenges of the future for the benefit of all Israeli citizens. The beating which the universities have taken over the past few years in terms of budget cuts has left us all wounded and in need of major funds to try and amend the damage made. The Shochat Committee is the only remedy in sight and it will hopefully bring us closer to this goal. Without the implementation of the recommendations of the Shochat Committee I am very worried about the future of Israeli universities.

The Technion

Major Academic Goals and Programs

This year we made first strides to formulate a strategic plan for the Technion for the next decade. The vision that we have formulated for the Technion is:

"A science and technology research university, among the world's top ten, dedicated to the creation of knowledge and the development of human capital and leadership, for the advancement of the State of Israel and all humanity."

This vision is the essence of our university. This vision is what we have in mind when we discuss our plans and goals. Over the years, in all my engagements abroad and in Israel, I have always declared my fundamental

goals for the Technion and they have remained unchanged. These goals are what guide me in my decisions and plans for the future of the Technion:

- Fostering academic excellence in research and teaching.
- Striving constantly to improve our international standing among the leading technological and scientific universities in the world.
- Developing new fields at the frontiers of science and technology, particularly where the Technion enjoys an advantage.
- Expanding the scope of interdisciplinary cutting-edge research, especially in fields that are vital for the State of Israel.

I wish to update you on the progress we have made in the major fields we have been developing and enhancing in the last year.

Nanotechnology

This is the second year that the *Russell Berrie Nanotechnology Institute* (RBNI) has been in operation and during this past year, I am proud to say, the Institute has been teeming with activity. The first year of the Institute's life was a year of setting up interfaces with the governing bodies and Technion life, as well as establishing managerial tools and issuing calls to researchers on campus to participate in the Institute's activities. The second year is marked by extensive scientific activity, by major steps to strengthen the infrastructure of the Center and with clear working procedures with the three governing bodies (the Russell Berry Foundation, the government of Israel through TELEM and the Technion), and a fully functional managing committee representing these bodies. The Institute also has an International Scientific Advisory Committee (ISAC) consisting of leading scientists from abroad and other universities in Israel as well as from the Technion. This committee will meet once a year and its first meeting took place earlier this year.

In 2006, three additional faculty members were recruited to the Institute and each has settled into their respective faculty (Physics, Chemical Engineering and Materials Engineering). We are continuing our search for

more suitable faculty members world-wide and in Israel to join the Institute and the Technion.

In order to continue to encourage innovative research, two major programs are still going strong:

- The "Genesis" Program (*Bereshit*) – This program solicits proposals for entirely new directions of research. It supports groups of five or more researchers for the purpose of developing new areas of research.
- The "Nevet" Program which encourages interdisciplinary research in nanotechnology that is at the beginning stages. Through this program 10 research proposals were approved out of 27 submitted this year.

This year was characterized by a major move to strengthening the equipment infrastructure of the Center. In July 2006 the RBNI received the Titan mono-chromated and aberration corrected field emission gun transmission electron microscope which is revolutionizing nano research worldwide. The Titan's cost is more than $4.5 million and it is housed in a custom-designed structure within the Faculty of Materials Engineering which is known as the Titan Center. This huge financial investment would not have been possible without the creation of RBNI. The Titan will make it possible for researchers to see atoms and extract important information regarding chemical bonds between atoms.

In January 2007, the 128 dual-core processor Linux cluster supercomputer was delivered. The cluster will be housed in the Center for Computation in Nanotechnology and will dramatically upgrade the computation capabilities of the researchers of the Institute.

All of these make the Russell Berrie Nanotechnology Institute one of the best equipped and one of the top such research centers in the world.

The Institute boasts some of the best and most talented faculty members. Dr. Shulamit Levenberg, a researcher at the RBNI has been named as a "science leader" on the list of "the 50 leading scientists for 2006" of the

prestigious magazine "Scientific American". Dr. Levenberg who is a leader in tissue engineering and is a faculty member at the Department of Biomedical Engineering is the only Israeli scientist in this prestigious list.

Another new member who joined the RBNI this year is Dr. Hossam Haick who was awarded the Marie Curie excellence grant totaling €1.73 ($2.3) million from the European Union (EU) for the development of an artificial olfactory system (an "electronic nose") that can "sniff out" cancer cells. The grant is part of EU efforts to strengthen and encourage promising, young scientists. Dr. Haick is the first Israeli scientist to win this prestigious award. He is a faculty member at the Faculty of Chemical Engineering.

I am looking forward to keeping you updated regarding the future development and successes of the *Russell Berrie Nanotechnology Institute*.

The Life Sciences and Engineering Interdisciplinary Program

The scientific world is spinning around new discoveries in life sciences and the Technion is at the forefront of these discoveries. Last year in my report, I described our vision to create a Life Sciences and Engineering (LS&E) Interdisciplinary research center. This vision became a reality when Mr. Lorry I. Lokey of San Francisco visited the Technion last May with the ATS mission which led to the establishment of the *Lorry I. Lokey Interdisciplinary Research Center for Life Sciences and Engineering* due to his very generous gift of $30 million. Currently the total resources devoted for the LS&E Center are about $50 million. The Center assembles all the existing resources available at the Technion in this exciting field and takes them into the coming centuries. Under the inspiring leadership of Nobel Prize Laureate and Technion Distinguished Professor Aaron Ciechanover, the Center is already in full action and formulating a long-lasting structure and direction.

The powerful combination of a technological university and a medical school means that scientific breakthroughs are swiftly translated into medical progress. Through the Center, the Technion will become a powerhouse of scientific and engineering collaboration. The Center will enable world-class

fundamental research in this important field and will empower the development of new drugs and medical technologies and it will drive Israel's life science industry forward. The activities of the Center are centered around five research clusters, distinct but yet interconnected:

1. *Structural and Systems Biology, Genomics, Proteomics, and Bioinformatics.* The goal is to develop a new interdisciplinary approach to understanding the entire repertoire of genes or proteins and their interactions rather than studying one gene and protein at a time. This will ensure a better understanding of disease patterns.
2. *Tissue Regeneration and Stem Cell Biology*. The development of biological substitutes incorporating living cells and synthetic or natural materials to foster tissue regeneration and enhance or replace tissue function. This will bring about new and non-invasive treatments to diseases such as diabetes, heart diseases and neurodegenerative disorders.
3. *Imaging*. To form an integrated imaging center where scientists can pool insight to develop new imaging capabilities. This will make it possible for scientists to view into "creation" itself.
4. *Bioprocesses Engineering*. Engineering tools such as computing power can be applied to solve complex biological problems and improve bioprocesses which are important to industry.
5. *Information Processing*. To create a scientific environment that will facilitate the development of a unifying theoretical framework for information processing. To unlock the secrets to life's information processing systems will provide us with the key to better human health.

   The framework and the structure of the Center have been decided upon.

The Center will have an international scientific advisory board, a steering committee (members already elected) and various committees to help lead and manage it such as the faculty recruitment committee and the teaching and education committee.

We are now at the end of the planning stages of the *Steven and Rita Emerson Life Sciences Building*, which once completed will house all the Center's activities. Two new interdisciplinary laboratories have already been decided upon and we are now in the process of building them. *The Lorry I. Lokey Network Biology Research Group* at the Faculty of Electrical Engineering and *The Lorry I. Lokey Tissue Regeneration Group* in the Biomedical Engineering laboratories.

The creation of the Center and all the excitement that it has generated on the Technion campus was all made possible through the vision of Mr. Lorry I. Lokey who saw first hand the brilliance and the potential that exists at the Technion and decided to support this endeavor.

The Schulich Faculty of Chemistry

The Faculty of Chemistry at the Technion is a highly ranked faculty. In September of 2006, Mr. Seymour Schulich made a generous $20 million gift to the Technion for the purpose of training future first rate scientists and scholars in the field of Chemistry. To thank him for his generosity and vision, the Technion has decided to name the Faculty of Chemistry in his honor – *The Schulich Faculty of Chemistry*. The gift from Mr. Seymour Schulich will propel the Schulich Faculty of Chemistry to the forefront of chemistry teaching and research in the world. This contribution to the Technion and the State of Israel will enable the Technion to attract and support the best faculty members from Israel and abroad. These young faculty members will, in turn, draw the most promising graduate students, who will serve as teaching assistants to elite undergraduate students who will be supported by generous Schulich scholarships. In addition, the 40-years old laboratories of the faculty will be renovated and brought up to current standards.

The 2006/2007 Academic Year

Administration Appointments

Central Management

On October 1, 2006 Prof. Moshe Sidi from the Faculty of Electrical Engineering assumed office as the Executive Vice President for Academic Affairs. Prof. Sidi is the former Dean of his faculty. Prof. Sidi replaced Prof. Moshe Moshe who served in this office for the last four years doing wonderful work in recruiting outstanding new faculty members.

Continuing in office as Vice Presidents are: Prof. Aviv Rosen, Senior Executive Vice President who will be replaced on October 1, 2007 after six fruitful years in office; Dr. Israel German, Executive Vice President and Director General; Prof. Moshe Eizenberg; Senior Executive Vice President for Research; Prof. Peretz Lavie, Vice President for Resource Development and External Relations.

As mentioned, Prof. Aviv Rosen, the Senior Vice President, will be replaced on October 1, 2007 after fruitful six years in office. He will be replaced by Prof. Paul Feigin from the Faculty of Industrial Engineering and Management who previously served as Dean of his Faculty for four years.

The following Deans have assumed office on January 1, 2007:

- *Technion Dean*

Prof. Shimon Haber, Dean of Students

- *Faculty Deans*

- Prof. Josef Avron, Faculty of Physics
- Prof. Abraham Berman, Department of Education in Technology and Science
- Prof. Yerach Doytsher, Faculty of Architecture and Town Planning
- Prof. Michael Shapiro, Faculty of Mechanical Engineering
- Prof. Baruch Solel, Faculty of Mathematics

The following Deans are continuing in office:

- *Technion Deans*

- Prof. Allan Pinkus, Dean of Undergraduate Studies
- Prof. Moshe Shpitalni, Dean of the Graduate School

- *Faculty Deans*

- Prof. Arnon Bentur, Faculty of Civil and Environmental Engineering
- Prof. Israel Cidon, Faculty of Electrical Engineering
- Prof. Yachin Cohen, Faculty of Chemical Engineering
- Prof. Boaz Golany, Faculty of Industrial Engineering and Management
- Prof. Menahem Kaftory, Faculty of Chemistry
- Prof. Joseph Mizrahi, Faculty of Biomedical Engineering
- Prof. Ido Perlman, Faculty of Medicine
- Prof. Omri Rand, Faculty of Aerospace Engineering
- Prof. Charlotte Schapira, Department of Humanities and Arts
- Prof. Oded Shmueli, Faculty of Computer Science
- Prof. Yuval Shoham, Faculty of Biotechnology and Food Engineering
- Prof. Dan Zilberstein, Faculty of Biology
- Prof. Emil Zolotoyabko, Department of Materials Engineering

Budget and Finance*

The Technion is still in a battle to balance the large deficit in its operating budget caused entirely by the severe government cutbacks in budget allocation for higher education expenditures. These cutbacks amount to NIS 203 million (26% of Technion's operating budget over the last six years)! At the request of the Planning and Budgeting Committee's (P&BC or VATAT), in November 2003 the Technion submitted a budget plan for the 5 years spanning 2003/4 to 2007/8. This plan would have led to **a balanced operating budget at the end of 2008**.

The plan implements substantial additional cuts in all Technion expenditures, but also assumes considerable increase in VATAT support,

restoring about half of the cutbacks which were incurred over the last seven years.

The plan includes a cut of some 237 personnel positions (including many senior academic positions) in the five years, in addition to the 116 positions already cut in 2002 and 2003, as well as substantial cuts in non-salary operating budget items. The cuts comprise an 18% (!) reduction in Technion's personnel positions since 2000.

The Technion fulfilled its obligations and implemented the budget cuts according to the plan since 2003/2004, despite the fact that the VATAT approval was pending for more than 3 years.

In May 2007, the Technion finally received VATAT's approval for the 5-year Plan.

The continued severe budget cuts implemented under the 5-year plan make it very difficult for Technion to achieve its strategic goals and vision. Support from our societies is more crucial than ever before.

The Technion budget is discussed below under two categories:

(1). Operating budget, which covers all the regular operations of the Technion and of which 73.4% are devoted to staff emoluments, 10% to operating expenses, 8.6% to students fellowships and aid, and 7.9% for maintenance.

(2). Development budget which comes almost entirely from donations and gifts. The development budget is used to develop and upgrade the infrastructure and to create new research centers and programs.

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* NIS/$ exchange rate of $1 US = 4.5 NIS (approximately the average exchange rate during 2005) was used throughout.

Note, however, that in May 2007, the NIS/$ exchange rate plunged to $1US = 4.00 NIS.

The 2005/2006 Budget Year

Operating Budget

The budget year 2005/6 has concluded with an operating budget deficit of NIS 108 million, close to the planned target of the 5-year plan of NIS 112 million. With the approval of the 5 year plan, VATAT has approved a special additional allocation to Technion of NIS 94 million and a permission to withdraw additional NIS 14 million from the "VATAT reserve fund" held by the Technion, thus, in effect, balancing the 2005/6 budget. After the withdrawal, approximately NIS 54 million will remain in the "VATAT reserve fund" to cover the anticipated deficit in the fiscal year 2006/7.

Development Expenditure

Development projects are managed as multi-year budgets. In 2005/6 the Technion invested (cash and obligations) an amount of NIS 146 million ($32.2 million) in development projects. Income for development projects amounted to NIS 183 million ($40.2 million). During the last two years there is a blessed increase in development income. A significant part of the increase is due to gifts for, among others, nanotechnology, biotechnology, the Grand Water Institute, student union building, Asher Space Research Institute and medical faculty projects.

The Table lists our investments (in NIS) in development projects divided into four major categories.

Project	Resource Received 2005/6	Invested in Projects 2005/6
Buildings & Renovations	81.3	61.9
Multidisciplinary Research Centers	77.8	63.0
Laboratories & Equipment	23.4	20.3
Infrastructure & Landscape	0.3	1.1
Total NIS	182.8	146.3

Investments

Technion's investment portfolio includes Technion pension funds that are invested within the framework of the investment pool. The investment policy is set by a public committee which meets several times a year. The value of the portfolio on September 30, 2006 was NIS 3,402.9 million ($791 million). About 69.5% of the portfolio was in Israeli index-linked investments, 9.4% in foreign exchange linked investments, 14.5% in shares and 6.6% in liquid assets.

The 2006/2007 Budget Year

Operating Budget

In the 2006/7 budget the Technion continues to implement the budget cuts according to the 5-year plan. For the budget year 2006/7, VATAT has approved for Technion an operating framework of NIS 947 million, with a budgeted income of NIS 908 million, including a VATAT special allocation (within the framework of the 5-year plan) of NIS 68 million (yet to be approved). This allocation leads to a deficit of NIS 39 million which will be covered by a withdrawal from the balance in the "Technion/VATAT Reserve Fund" held by the Technion. This will leave NIS 15 million in the "VATAT Reserve Fund".

Bosmat School

Negotiations with the Haifa municipality for taking on responsibility for the school have not been successful despite many concessions made by Technion in hope of keeping the school operational. Consequently, it was decided to close the school in July 2007. Termination agreements have been concluded and signed with all employee unions.

Pension Payments and a New Pension Plan

Pension payments to all Technion employees are made from the operating budget. In 2005/6 pension payments amounted to NIS 124 million, 13.2% of the operating budget and this year they are expected to rise to NIS 129 million.

These payments are expected to increase for the next 12 years when they will level out.

As was pointed out in my previous report, starting from January 1, 2004 all new Technion employees, both faculty and administrative staff, have a regular external pension fund. This will have a very positive, future, long-term effect on Technion's financial stability.

Academic Affairs

The Faculty

The Technion's faculty members represent some of the sharpest and most talented minds in the academic world and one of my major goals has always been to keep this illustrious tradition of outstanding faculty, and recruit brilliant young faculty members who will take the Technion into new and exciting places. However, recruiting new faculty members is a major challenge. Until a few years ago, the Technion was a university with relatively young academic staff and low retirement rates. After celebrating our 80th Anniversary the Technion has entered a new era of much higher retirement rates. This higher retirement rate, combined with the budgetary crisis, which only allows us to recruit in average one faculty member for every two faculty members retiring, has resulted in a significant drop in the total number of faculty members and consequently has resulted in a higher students to faculty ratio which is unacceptable in the long run. Therefore, the number of faculty members will have to be increased in the coming years if we want to develop and excel in new fields of science and technology, fields such as nanotechnology, the life sciences and engineering, alternative energy, water and environment and others. It is crucial that along with the capital investments in these areas, the human resource must also be nurtured and expanded so that we can fully realize the potential that lies with the Technion.

The toll of the Technion financial situation on the recruitment of new faculty members has been significant in recent years and is especially difficult this year. Only 10 full-time new faculty members joined the Technion this year

(not including clinical and adjunct nominations). As a result of the budget cuts, the total number of full-time faculty members dropped from 615 in 2000/1 to 574 in 2004/5 and to only 545 this year (2006/7) - an alarming low number! It is clear that the Technion reached the "red-line" in terms of the number of faculty members, and this number should not go lower.

A table that shows the recruitment of new faculty members to the Technion since 2001 is shown in the following table:

Year	**Senior Academic Staff**	**Clinicians**	**TOTAL**
2001/2	27	6	33
2002/3	15	18	33
2003/4	24	14	38
2004/5	24	20	44
2005/6	21	20	41
2006/7	10	9	19
TOTAL	121	87	208

With the help of special programs such as nanotechnology or the life sciences and engineering program, the number of faculty members that are recruited can be slightly increased. We also hope that the government will adopt the recommendations of the Shochat committee which will certainly recommend significant additional resources to the universities which will allow the Technion to increase the number of excellent young faculty members that we can recruit. In addition, we are developing new fund raising programs which will allow us to recruit more faculty members and reverse the trend of the last years, increasing back the number of faculty to around 600 over the next five to seven years.

A very bright angle in the recruitment of the last years and this year in particular *is the excellent crop of brilliant young faculty members that joined us.* Many of them had attractive offers from other institutions in Israel and abroad. It took significant effort on behalf of the departments' deans and the Technion management, as well as substantial resources, to attract them to the

Technion. *The Leaders in Science and Technology Program* initiated and supported by Mr. Henry Taub, played an important role in making these efforts successful.

The success of our young faculty members is apparent by the fact that each year several of them are awarded various prizes and distinctions, including the prestigious Alon Fellowship. Last year the two that won this fellowship were Dr. Isaac Keslassy from the Faculty of Electrical Engineering and Dr. Yariv Kafri from the Faculty of Physics. This year the winners of Alon Fellowships are Dr. Debbie Lindell from the Faculty of Biology and Dr. Avner Rothschild from the Faculty of Materials Engineering.

Dr. Lindell completed her Ph.D. studies at the Hebrew University, spent her post-doctoral period at MIT, and her research interests lie in the understanding of the processes behind genome-wide variations and how organism-habitat interactions impact an organism's genetic make-up. Dr. Lindell also won the prestigious Marie Curie reintegration grant of the European Commission (EC) and the prestigious Legacy Heritage Fund grant (Morasha) selected by the Israel Science Foundation.

Dr. Rothschild completed his Ph.D. studies at the Technion, spent his post-doctoral period at MIT and his research interests are in nanotechnology, in particular in defects and transport properties of nano scale electro-ceramic materials; design and characterization of functional nano-materials for energy conversion and environmental applications.

Our leaders in Science and Technology Program, created by Henry and Marilyn Taub, continue to serve as an invaluable instrument enabling the recruitment of young outstanding faculty members and provide them with the required infrastructure and equipment. Dr. Rothschild and Dr. Kafri who later won the Alon Fellowship were recruited under this program. Three additional excellent young faculty members were recruited this year under this program are:

Dr. Hossam Haick, Faculty of Chemical Engineering: Ph.D. from the Technion and postdoc in the California Institute of Technology. He won the Maof

Fellowship that is aimed to encourage the recruitment of faculty members from minority groups within Israel such as Arabs and Druze. He was also awarded the very prestigious Marie Curie excellence grant, the largest EC grant awarded ever to an Israeli researcher, of about €1.73 million. Dr. Haick is the first Israeli scientist to win this prestigious award. Dr. Haick's research interests include the development of an "electronic nose", namely, bio-inspired artificial olfactory nano-systems and odor detection based on arrays of cross-reactive sensors, for detecting cancer in the breath.

Dr. Yariv Kafri, Faculty of Physics: Ph.D. from the Weizmann Institute of Science and postdoc at Harvard University. He won the Alon Fellowship. His research interests are in biophysics, in particular the statistical properties of biomoleculars, molecular motors, protein-DNA interactions and RNA folding.

Dr. Dovev Lavie, Faculty of Industrial Engineering and Management: Ph.D. from Wharton School of Business, University of Pennsylvania, then Assistant Professor at McCombs School of Business, University of Texas at Austin. His research interests are in the information technology industry and include collaboration and competition in the information industry; value creation and appropriation in alliance networks and implications for organizational performance.

Another important national prize for young faculty members is the Wolf fund's Krill Prize for Excellence in Scientific Research and it was awarded this year to *Dr. Amir Orian* from the Faculty of Medicine who joined the Technion last year. His research interests are cancer biology, functional genomics, genetics and the ubiquitin system.

Dr. Shulamit Levenberg of the Faculty of Biomedical Engineering also recruited in recent years, was named as a “science leader” on the list of the 50 leading scientists for 2006 of the magazine *Scientific American*. On this list are the 50 leading scientists who, in the opinion of this important journal, led the way in science and technology during the past year. *Dr. Levenberg* was selected to the list for her innovative research in tissue engineering using

embryonic stem cells. Her research is carried within *The Russell Berrie Nanotechnology Institute*.

The outstanding quality of the new faculty that we recruit provides the necessary strong basis for Technion excellence and leadership and makes me confident in the future of our great institution.

Another bright angle in this year's recruitment is that 3 out of the 10 new faculty members (30%) are women. During the past four years 20 out of the 79 new faculty members (25%) were women and the total number of women faculty members at the Technion today is 86 out of the total of 545 faculty members (15%), the highest in Technion's history. This trend has to be continued and we are taking steps towards this goal. A Board committee, headed by Ruth Alon is examining the issue and has already made some recommendations that were adopted by the management.

New regulations adopted recently by Technion Senate relating to faculty members will be helpful in this respect. One is related to the extension of the period until the tenure decision for women (or male) faculty members that had newborns in the family during their first years at the Technion. Another is related to adding a formal meeting headed by the Vice-President for Academic Affairs, with the faculty member and her/his Dean in cases there are hesitations during a tenure decision. In some cases these meetings proved useful in changing the view of the tenure committees in making their important tenure decision.

Undergraduate and Graduate Studies, and other Academic Programs

Due to the Hezbollah rocket attacks on Haifa, starting on July 16, 2006 and lasting 33 days, the spring semester examinations were suspended and the summer semester was cancelled. The opening of the 2006/7 academic year was postponed by two weeks and all the suspended examinations took place in September. In terms of student life and studies, the war had several

consequences which we managed to deal with successfully. The Technion has proven that even in very difficult times the strong foundation we have has carried us through and made us stronger.

As I write this report, we are emerging from nearly six-week long nation-wide student strike in response to the establishment of the previously mentioned Shochat Committee. As a result and in keeping with Technion's high academic standards, we will have to extend the academic year by four weeks until August 2. The summer semester, to a large extent, will be cancelled. We hope that with the collaboration of the faculty members and additional steps which will be taken, we will be able to assist them and minimize the damage to our students. However, it is clear that the spring semester that has been interrupted twice in a row is creating very serious difficulties for our students and faculty members.

Undergraduate Studies

This year there are 1,836 new undergraduate students at the Technion which is an 8% increase over last year's numbers. The main reason for this increase in admissions is our prominent standing amongst the academic institutions in Israel and the recognition that we are indeed the country's primary resource for highly trained technological and scientific personnel. Also, this year the admission process was better and more effectively realized, both by the admissions center and the faculties. In an effort to draw to the Technion the best students this year, for the second time, we held an open day in Tel Aviv.

This year was marked by a substantial increase in applications to the Faculty of Industrial Engineering and Management (an increase of 23%) and to the Faculty of Computer Science (an increase of 11%). The number of applications was similar to last year's in the Faculties of Electrical Engineering, Mechanical Engineering and Aerospace Engineering. A decrease in applications was noted in the Faculties of Civil and Environmental Engineering, Mathematics, Physics, Chemistry and Biology.

Improving the quality of teaching continues to be a very important priority. In our continuing efforts to improve the quality of teaching our Center for Promotion of Teaching provides workshops for all faculty members, especially new faculty members, in areas such as composing and evaluating examinations and integration of information technologies in the teaching process. The MOODLE system is a course management system integrated last year and already there are 1,300 courses managed on the system, an increase of 25% over last year's number.

We have established a special committee to review the service courses in Mathematics and Chemistry provided as basic courses to students of various faculties. The committee's duties include the review of all syllabuses and recommending adjustments if necessary as well the reviewing the demand of the faculties these courses are servicing. We plan to start to implement these recommendations in the next academic year, but the pace of the implementation will unfortunately depend on the budgetary situation.

This year the Technion has completed the process of converting to an on-line admissions system. Now the Ministry of Education publishes the final matriculation results online. This will allow for a quicker application and admission process.

The table on the following page shows the number of undergraduate students in the last three years as well as the number of undergraduate students per Faculty, divided between engineering and non engineering disciplines. The table shows that the number of new undergraduate students has grown steadily over the last three years, from 1,880 in 2004/5 to 2,096 in 2006/7. This follows our obligation to VATAT, according to the 5-year plan.

In 2006/7, 73% of Technion undergraduate students were studying engineering disciplines and 27% non-engineering disciplines, such as the natural sciences, mathematics, computer science and medicine.

Total Undergraduates and New Undergraduate Students

	Total Number of Students			*New Students*		
Year	**2004/5**	**2005/6**	**2006/7**	**2004/5**	**2005/6**	**2006/7**
Engineering	6,465	6,322	6,383	1,267	1,366	1,437
Non-engineering	2,451	2,368	2,352	613	599	659
Total	**8,916**	**8,690**	**8,735**	**1,880**	**1,965**	**2,096**

Undergraduate Students by Study Program in 2006/07

Engineering:

• Aerospace Engineering	373
• Architecture & Town Planning	529
• Biochemical Engineering	112
• Biomedical Engineering	227
• Biotechnology & Food Engineering	294
• Chemical Engineering	231
• Civil Engineering (incl. Mapping and Geo-Informatics & Agricultural Eng)	717
• Computer Sciences – Engineering programs	377
• Electrical Engineering	1588
• Environmental Engineering	92
• Industrial Engineering and Management	777
• Materials Engineering(jointly with Physics or Chemistry	242
• Mechanical Engineering	773
• Quality Engineering in Bio-Processes	51
Total Engineering	**6,383**

Non-Engineering:

• Biology	246
• Chemistry	120
• Computer Sciences	625
• Economics and Management	102
• Education in Technology and Science	228
• General Studies Program	52
• Mathematics	153
• Mathematics & Computer Sciences	45
• Mathematics & Physics	53
• Medical Laboratory Sciences	52
• Medicine & Medicine Biomedicine	335
• Molecular Biochemistry	110
• Physics	231
Total Non-Engineering	**2,352**
Grand Total:	**8,735**

Graduate Studies

Many times before, I have emphasized that one of my goals is to increase the number of graduate students at the Technion, especially the number of Ph.D. students. There are two main motivations for this desire:

(1). graduate students are the basis for innovative and fruitful research. They have the desire and the drive to conduct first-rate research and they also bring a fresh outlook and ideas. I strongly believe that the evolution of research and the strides and progress we make are in great part due to outstanding graduate students whose passion and intellect drive forward whatever area of expertise they belong to;

(2). Israel's high-technology industry needs people with better qualifications and experience in research to lead it in the highly competitive global market.

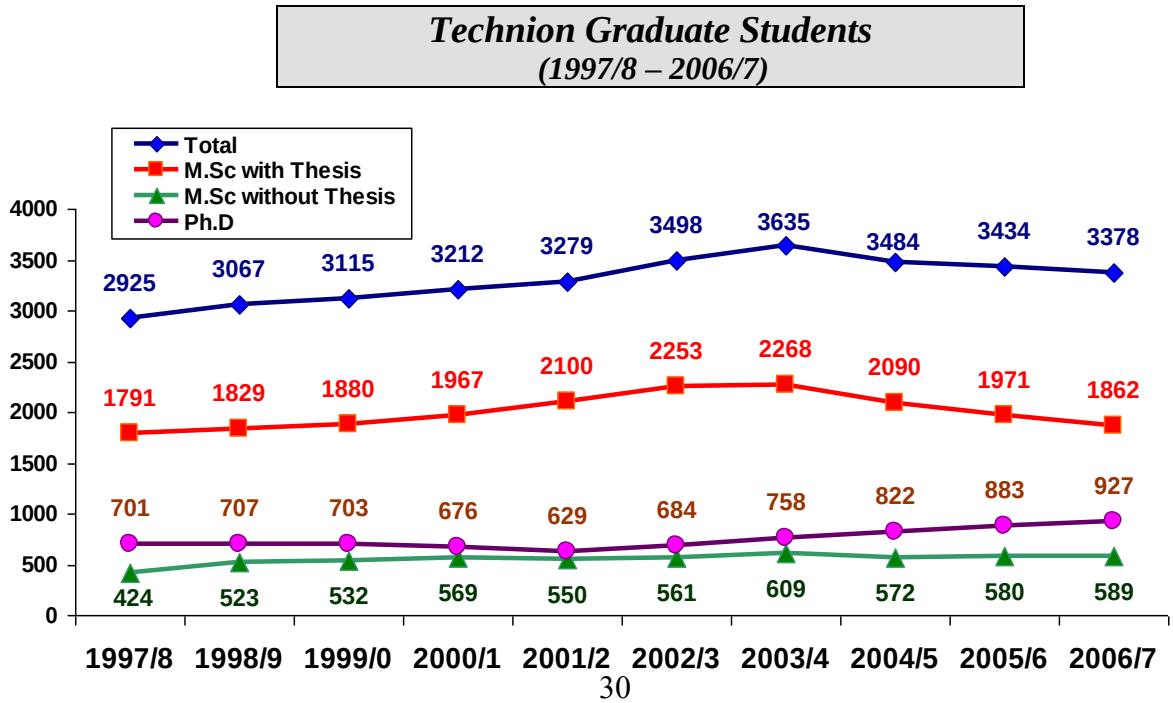
Increasing the number of graduate students requires increasing budgets for graduate fellowships. The average graduate student in Israel, specifically the average Ph.D. student, is more mature than the typical graduate student abroad in terms of his/her age and their family status. Many of the Ph.D. students are married with children which makes it even more vital that we provide them with a suitable financial package in order to give them the incentive to remain at the Technion and continue with their doctoral studies. This year the Technion devoted some NIS 75 million (7.9%) of its operating budget to support graduate fellowships. Supporting these fellowships from the operating budget has become increasingly difficult due to the large budget cuts by the government. My declared goal has been and remains to raise an endowment of $300 million for the purpose of a secure, long term source for graduate fellowships. Raising this large amount requires a major effort of all of the societies and the very generous assistance of our friends, both in Israel and abroad. This endowment is truly an investment in the future, as these students are the future. Without them the Technion, or any other leading academic institution for that matter, will eventually cease to be.

In last year's report I told you about the planned Graduate Village project which will be like no other in Israel. This planned graduate Village will

provide necessary living accommodation and services to make life easier for graduate students and their families and it will also provide a wonderful atmosphere for encouraging interactions between students from a variety of disciplines initiating, we hope, multi-disciplinary ideas for research. The village will include about 200 apartments for married couples and families, a club-house for social meetings, computer farms and more. Overall it will provide our graduate students with a very attractive living environment enabling us to attract to Technion more effectively the best students from Israel and abroad. We are now able to realize this vision of a Graduate Village due to a large anonymous gift we recently received for that purpose. We hope to complete the village and open it for the students in 3-4 years.

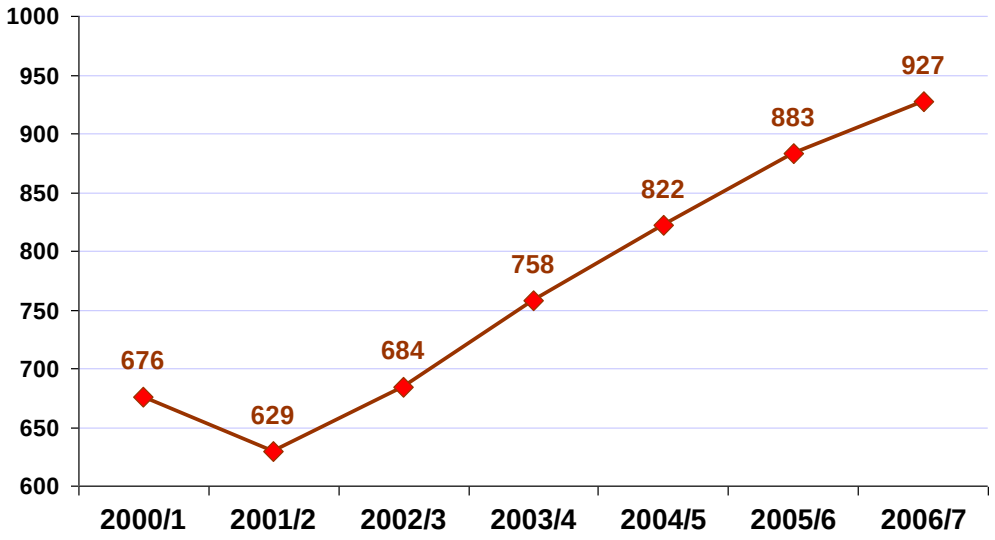
It gives me great pleasure that Irwin and Joan Jacobs, long time friends and supporters of the Technion, have realized the importance of investing in our graduate students, and have generously committed $30 millions toward the graduate school, mostly to support fellowships, which is now known as the *Irwin and Joan Jacobs Graduate School*. I have said time and time again that without the vision of our many friends worldwide we would not be able to reach the heights we aim to reach and Irwin and Joan Jacobs' generous gift makes us more confident and optimistic about the future.

The graph below shows the progression in the total number of M.Sc. and Ph.D. students for the last 10 years (1997/8 – 2006/7).



The graph below shows the number of Ph.D. students over the past 7 years (2000/1-2006/7). *It shows a significant increase of nearly 35% in the number of Ph.D. students since 2001/2.* Accordingly, also the number of Ph.D. degrees awarded has increased over the last years from 102 in 2001 to 139 in 2007.

Technion Ph.D. Students
(2000/1 – 2006/7)



As of the spring semester of the 2006/7 academic year, a total of 3,705 students were registered at the Graduate School, including 927 Ph.D. students, 2,726 Maters degree students and 24 non-degree graduate students.

In this year's graduation ceremonies we awarded a total of 2,733 graduate degrees: 139 doctorates, 717 Master degrees (including 107 MBA degrees), 72 MD degrees and 1,806 BA and B.Sc degrees.

Several new programs were instituted this year and are waiting the approval of the Council for Higher Education.

- Master of Science in Transportation Sciences (Road Safety).
- Master of Engineering in Mapping and Geo-Information Engineering.
- Master of Engineering in Civil Engineering (Quality Assurance and Reliability).
- Interdisciplinary Ph.D. Degree in Nano-sciences and Nano-technology.

- Interdisciplinary Study Program in Energy and Environment (within the general interdisciplinary ME program).

This year, for the first time, the Graduate School held an open-house for potential graduate students aiming to attract to Technion the best graduate students from all over the country. The event attracted around 700 people. The potential students visited the different faculties on campus, with each faculty offering a welcome reception, lectures about the faculty, guided tours of the laboratories and personal meetings with students and faculty.

The Graduate School's newly designed state-of-the-art website was launched at the beginning of the academic year. The new site includes comprehensive and detailed information about all Graduate School activities.

Post-Doctoral Fellows

This year we had many cancellations of scientists that were offered postdoctoral positions at the Technion. Of the 48 new offers the Technion gave only 31 postdocs actually arrived. This is mostly due to the effect of the second Lebanon War during the summer. The effect on short-time visitors at the Technion was somewhat less significant, although the total number is still low and has not returned to the Pre-Intifada numbers.

The Calatrava-Tzonis Lectures

On December 11 – 13, the Distinguished Visiting Professor Santiago Calatrava, the world-renowned architect and civil engineer (the recipient of Technion Honorary Doctorate of Science in 2004) gave a spectacular 3-day lecture series on campus entitled "Constructing the New Designing Minds," together with Prof. Emeritus Alexander Tzonis, former chair holder of Architectural Theory and Design Methods at Delft University of Technology. The Churchill Auditorium was packed with students and faculty members eager to hear what these two great scholars had to say. The lectures were also attended by many of the leading Architects in Israel.

Pre-Academic Studies

The Center for Pre-University Education has several types of activities under its roof. This includes the preparatory programs for academic studies ("Mechinot"), youth activities, support of excellence among youth, and many other educational activities to promote different populations, especially under-privileged, within Israel.

The Preparatory Program includes many different programs that are especially tailored for students with differing needs. The number of students studying in these programs is about 1,600. Statistics show that about 65% of its graduates are subsequently admitted to the Technion. The preparatory courses include: a mathematics course for students already admitted to the Technion in order to make it easier for them during their first year of studies; a physics course for those who do not possess the required physics knowledge from high school; a graphic skills prerequisite course intended for students who wish to study Architecture and Town Planning; and a course for Arab students aimed at strengthening their knowledge in mathematics, physics and English.

In the framework of the "Atidim Program", in coordination with the IDF, a pre-preparatory course was held for some 70 Ethiopian, Druze and peripheral areas students dispersed in heterogeneous classes, to help them prepare for joining the preparatory course and its examinations, as well as the aptitude examination needed for application to the Technion. This year's graduating students from the "Atidim" class have been accepted to Technion as well as to other higher-education institutions in Israel.

The Center also operates the *Harry and Lou Stern Youth Activities Unit* whose purpose is to make science and technology more accessible to children and youths. The scope and the volume of students participating in the unit's activities grow every year and this year was not exception. 7,600 students took part in 19 science days, 500 students took part in the extracurricular activities the unit offers, 200 students participated in the tours around campus and 7,100 students participated in 33 different science and technology workshops.

Unfortunately, the SciTech International Research Summer Camp had to be cancelled due to the war.

In the summer months of 2006, the Youth Activities unit moved to its new modern home in the *Youth Wing named after Arie and Jacqueline Carasso* and seven new laboratories equipped with new state of the art equipment and new classrooms were inaugurated. *These new facilities open entirely new possibilities to the Unit and their opening is a celebration to all science lovers in Israel.*

Continuing Education and External Studies

The Unit specializes in organizing and developing course programs in the academic disciplines of the Technion, for graduates of academic institutions who wish to update and broaden their education. The unit also caters to executive professional staff in different fields of engineering and administration through courses, conferences, and special study sessions with the collaboration of various Technion Faculties. The unit also develops training and retraining programs for engineers and academics. The development of these programs is done in concert with modern areas of industry and technology and the programs enable a level of training that will ensure placement in the forefront of research and development. The Unit operates on the Technion campus and in Tel Aviv.

There are currently 1,490 students studying in the Unit who study in the following programs:

- MBA with emphasis on High-Tech companies.
- *M.E. in*: systems engineering; biomedical engineering; biotechnology and food engineering; engineering with emphasis on real estate; environmental engineering; M.Sc. in architecture – with an emphasis on conservation.
- *Management studies*: Management and development of human resources; management of industrial projects; quality assurance

engineering; financial market consultants and portfolio managers; management of logistic systems.

- *Continuing education programs in medicine*: family medicine; sports medicine; clinical and medical hypnosis; heart rehabilitation; medical studies for anesthetists.
- *Real estate studies*: Land assessing and property management; planning and construction law; interior design; management of construction projects; accessibility consultant training for architects.
- *Computer courses***:** ERP systems; analysis and engineering of organizational information systems; software engineering; chief information security officers; quality assurance.

Students Affairs

The Lebanon War and its implications

This past summer was very challenging in terms of student affairs due to the war and the fact that it impacted all Technion students in one way or another. The challenge of dealing with the day-to-day problems arising due to the situation was met successfully by the Office of the Dean of Students and particularly by the staff of the *Beatrice Weston Center for the Advancement of Students* and they deserve many compliments for their devotion and outstanding functioning during the difficult period of the war and the following months. During the war, the Center served as an "emergency room". It maintained an "open door" policy and students who had inner-strength were able to counsel their fellow students. Students suffering from anxiety, injuries or family members getting hurt were immediately identified and treated. After the war, the sharp transition from war to routine academic life of classes and examinations caused problems with some students that the Center successfully dealt with. All academic assistance was given in cooperation with academic staff members, faculties and the Technion Student Association.

Some 1,200 students who served in the army reserves and thousands who were residents of Haifa and the North of Israel received individual counseling. Group lessons were organized with the help of the Technion Student Association and altogether students received 6,000 hours of private tutoring and 250 hours of group lessons. Many reserve soldiers in emotional distress received counseling and support as many of them have gone through difficult experiences. Many of these students needed guidance on how to return to daily student life and the Center provided them with the necessary counseling and the coping options. Students who were injured during the war were given special attention: the unit staff visited them in hospitals and their homes, and provided them with broad emotional and academic support.

The Technion decided to set up and raise money to a special Emergency Fund that will help the Technion students at these difficult times. Our friends abroad, especially the ATS, met this challenge head on and an incredible $2.2 million were raised in a short time. This is an enormous help financially as well as a boost for the moral of our students. All students who served in the reserves during the war were given appreciation grants of up to 1000 NIS from the Emergency Fund. Students who were financially afflicted during the war received grants of up to 5,500 NIS and about 500 students were given loans of up to 27,000 NIS. I am very proud of the way the Technion and its friends around the world handled the challenges posed by the war and I know that we have grown stronger due to these events.

Other Issues

I now wish to inform you of the more routine activities of the office of the Dean of Students.

Student dormitories: The dormitories provide 3,636 housing solutions – 3,211 for singles and 425 for married couples and families. The dormitories house 2,824 undergraduate students, 190 pre-academic students, and 338 graduate students.

We continue our long-term project to upgrade old dormitories. During the past year we completed the East Village project, the largest construction project in the history of the Technion, which added 800 beds for the benefit of students. The Neve America complex will be fully air-conditioned in the summer of 2007 and 3 buildings in the Canada complex are being renovated. The next huge step forward, as pointed above, is the addition of 200 apartments for married couples and families within the newly planned Graduate Village.

The Student Union Building: The building is undergoing a complete renovation as well as extension. Once completed, the new building will change significantly the quality of life of students on campus. The steering committee for the project, which includes student representatives, completed, after much deliberation, the plans for the renovations and tenders were issued. Work on the refurbishing and expansion has started recently. The renovation required also the temporary transfer of the offices of the Dean of Students and of the Student Association to other buildings on campus. A significant part of the necessary funds around $10 million required for the full implementation of this project have already been raised but additional contributions are required so that we can complete this large project, to benefit our students.

The Philip and Frances Fried Counseling Center's psychologists and social workers offer expert, clinical psychological assistance to some 250 students each year.

The Cultural and Social Unit organizes activities in collaboration with the Technion Students Association. The activities include film screenings, parties, and lectures. The unit also operates several unique centers including the music center, photography center and a fine literature library.

Wednesdays at the Technion are "student days" and across campus music can be heard and the Zielony Plaza is full of students either shopping at the stands of clothing, books and other accessories, or listening to the music and dancing.

Professional Employment and IAESTA. This year there were two employment fairs with the participation of 77 companies. These fairs are the largest of their

kind in Israel and this emphasizes Technion's leading position as the most important human resource provider to the Israeli Hi-Tech industry. Over 1,400 students received professional guidance and counseling and over 1,600 students were successfully placed in jobs.

In the framework of IAESA (student exchange) 27 students went abroad and 40 students from abroad spent time at the Technion.

Community Projects: 1,700 students provided over 200,000 hours of community service to school children, the underprivileged and the elderly. Through a joint project between the Technion, Haifa Municipality and the Ministry of Education, 160 Technion students provided tutoring in mathematics to primary school children in Haifa schools.

Student delegations to the USA: Three groups (each including a faculty member and a carefully selected male and female student) sponsored by the ATS, met communities and ATS groups in the United States and this year for the first time in Canada as well. This year there was one graduate student and one undergraduate student in each group as a manifestation of the Technion policy to emphasize graduate degrees and increase fund-raising for graduate fellowships.

The Unit for Personal Assistance provides assistance to students in personal and financial distress through scholarships and loans, and scholarships based upon community service. The unit also assists army reservists with summer courses and photocopies. This year 1,100 undergraduate students received loans from the Technion Loan Fund. The unit dealt with over 5,000 students throughout the year and provided 600 army reservists with free photocopying.

Research

Funding

In 2006, research contracts signed by the Research Authority amounted to $44.5 million, an increase of $3.9 million over the amount in 2005. This is the third consecutive year that outside research funding has increased, and this year the increase in mainly due to an increase in funding from the European Community (EU) research fund. In the last three years Technion researchers have increased outside research funding by $14.3 million. This is a significant achievement, indicating a stronger research activity on campus and this trend must continue.

In 2006, the Technion funding from the European Union's 6th Framework Program for R&D amounted to €5.7 million ($7.4 million). In total, the estimated funding at the Technion from this four - year program is €20.5 ($26.7) million. In this framework there are 83 research proposals already approved. Most of the funding was directed towards research projects in the field of Information Technology. Of particular importance is the Marie Curie grant of €1.7 ($2.2) million received by Dr. Hossam Haick for his "electronic nose" proposal.

Last year the sum received from ISF (Israel Science Foundation), BSF (USA-Israel Binational Science Foundation) and GIF (German-Israel Foundation) – the three major grant agencies for basic research in Israel, was $9.3 million.

The efforts to increase research interaction with industry have continued this year. There is a steady increase in the sums involved in this relationship: from $2.8 million in 2002 to $6 million in 2006. A major channel in which such cooperation with industry takes place is through R&D projects funded by the chief scientist of the Ministry of Industry, Trade and Labor. In 2006, 11 new "Magneton" projects, 5 "Nofar" projects and one additional "Nataf" project were approved. 57 Technion researchers participated in 41 projects under the framework of 11 "Magnet" consortia projects.

In addition to externally funded research through research contracts, we have also received contributions to support individual researchers or for setting up research infrastructure from our friends and supporters worldwide in the sum total of $14.5 million, (including $5.8 million for the *Russell Berrie Nanotechnology Institute*). $1.8 million were also raised for equipping the laboratories for new faculty members. In addition, $3.4 million were received from the Ministry of Immigrant Absorption for supporting the absorbing of new immigrants into the Technion.

Over the past year, $2 million were allocated from internal Technion sources to encourage research activities by faculty members; and approximately $1.5 million were budgeted for research through academic chairs and the CDC program.

$14.5 million were allocated to finance fellowships for graduate students conducting research.

The total amount allocated to research in 2006 which includes: external funding, donations aimed to support research, internal funds and graduate student fellowships **amounted to $82 million**.

In 2006 we continued to encourage initiatives for interdisciplinary research activities that include faculty members with different expertise from different faculties. *The Russell Berrie Nanotechnology Institute* excelled in bringing together researchers from different disciplines. Another initiative that is well under way is *The Lorry I. Lokey Interdisciplinary Research Center for Life Sciences and Engineering* that will bring together researchers from different disciplines to make the discoveries of the next millennium.

In 2006, *The Peter Munk Interdisciplinary Research Center* has been established and it will conduct research in select interdisciplinary areas. We strongly believe that the next important discoveries will be made through interdisciplinary research.

We are now preparing the Technion for competing for the huge 7th European Framework Program for R&D totaling €50 billion over 7 years! This program is the European Union's main instrument for funding R&D. This

program can potentially bring in much needed funds to the Technion. The Technion administration has made it a priority to encourage faculty members to submit proposals to this important program.

Some Research Highlights of the Past Year

As in previous years, this year was also marked by many new exciting discoveries and the advancement of technologies in a wide variety of fields. Below I have provided you with a few examples and samples of the many innovations and discoveries made at the Technion over the past year.

- *Dr. Hossam Haick*, of the Faculty of Chemical Engineering and the *Russell Berrie Nanotechnology Institute*, has been awarded an excellence Marie Curie grant of €1.73 million from the European Union (EU) for the development of an artificial olfactory system (an "electronic nose") that can "sniff out" cancer. This is the largest grant received from the EU by an Israeli researcher. In its initial stage, the "electronic nose" is intended to sniff out and diagnose lung cancer. Dr. Haick was recruited to the Technion last year after he completed his postdoctoral studies at Caltech.
- *Dr. Shulamit Levenberg* from the Faculty of Bio-Medical Engineering and *Prof. Lior Gepstein* from the Rappaport Faculty of Medicine and their students have succeeded in creating in the laboratory a beating heart tissue from human embryonic stem cells. Moreover – they have succeeded in creating blood vessels in the tissue, which will enable its acceptance by the heart muscle. The prestigious scientific journal *Circulation Research* reports in its on-line issue on two innovations in the researchers' work: one, the use of human embryonic stem cells, and two, the creation of a vascular system in the tissue, which is critical for its acceptance by the body.
- For the first time, Technion researchers demonstrates how the diffusion of light in a photonic crystal is stopped as a result of disorder created within it. *Prof. Moti Segev* and his students and *Prof. Shmuel Fishman* –

have succeeded in demonstrating Anderson's theory in a photonic crystal. Their research appears in the latest issue of the prestigious journal "Nature".

- *Prof. Roy Friedman* and his students from the Faculty of Computer Science have developed software that enables direct, wireless (WiFi) communication between laptop computers as well as desktops without intermediaries such as an Internet router. In the near future, the software will enable this kind of communication, in a range of tens of meters, between cellular phones without the need for an intermediary such as a cellular operator. The Technion researchers are providing the software free.
- *Prof. Shlomit Tarem* and *Prof. Yoram Rozen* of the Faculty of Physics are participating in the construction of "Atlas" – a giant detector that will be an important part of the largest accelerator in the world, which is being built at CERN, a large research facility near Geneva. The researchers say that the accelerator will give us a good picture of the structure of matter in nature and we will better understand the meaning of the four forces of nature. Along with the pair are some 1,700 physicists from 150 universities in 30 countries. The building of the accelerator and detector is scheduled to be completed by the end of 2007.
- Ten students, under the direction of *Prof. Benjamin Landkof* and *Robert Zickel* at the Faculty of Aerospace Engineering have succeeded in developing a system of refueling from one unmanned aerial vehicle to another. The project was presented at the 47th Israel Annual Conference on Aerospace Sciences. At present, there is no similar system on the market.
- *Prof. Amram Mor* of the Faculty of Biotechnology and Food Engineering, together with his research students have discovered a way to maintain peptides in the body. Peptides, short proteins found in all organisms, constitute part of the human immune system. They survive

only a short time in the body – generally only up to a few minutes. The Technion researchers succeeded in stabilizing and maintaining them in the body for hours due to a unique structure that turns them into an efficient drug. The team published their findings in an article in the prestigious scientific journal *Chemistry and Biology*.

- *Prof. Yoram Baram* of the Faculty of Computer Science has developed an apparatus with auditory feedback that improves walking for Multiple Sclerosis (MS) and Parkinson's disease patients. This is a new version of a virtual reality visual feedback apparatus developed by *Prof. Baram* some ten years ago, which improves walking by presenting the floor to patients as a checkerboard tile pattern. *Prof. Baram* worked with *Prof. Ariel Miller* of the Technion's Rappaport Faculty of Medicine at the Carmel Medical Center in Haifa, in examining the apparatus's influence on the gait quality of MS patients. Their work was recently published in the "Journal of the Neurological Sciences."
- *Prof. Moshe Shoham* of the Faculty of Mechanical Engineering with the participation of *Dr. Menashe Zaaroor* of the Faculty of Medicine and the Rambam Medical Center has succeeded in finding a way to move a swimming micro-robot through the human body. The robot's swimming mechanism is especially adapted to the movement of a tiny body through water. When the swimming mechanism is attached to a micro-camera, it is possible to reach the specific target area in the body and send back pictures. The Technion development has already been presented at scientific conferences and aroused great interest.

Technion Research and Development Foundation (TRDF)

The TRDF undertakes four types of activity: (a) The Research Authority handles Technion's sponsored research received from outside sources; (b) The Unit for External Studies and Continuing Education; (c) The service units

which provide services to a number of branches of the economy; (d) The unit that deals with the commercialization of intellectual property and patents which were developed at the Technion.

In 2006 TRDF continued its efforts to reduce its operating budget deficit. Technion management decided to do so by reforming or closing service units which are not balanced. Unfortunately, reforming usually entails the dismissal of employees and the TRDF has made great efforts to find these employees alternate employment. The terminations of employment were mainly due to the closing of the Building and Infrastructure Testing Laboratory in May of 2006. In fact, the laboratory was sold to an external company and most of the employees continued their employment at the laboratory. The reason for the sale of the laboratory was that it has incurred successive losses over the past ten years and its activity within TRDF no longer presented any advantage.

The TRDF's increasing efficiency can be summarized in the following manner: at the end of 2001, 362 employees were employed by the TRDF (not including research employees supported by external research grants) and the revenues stood at NIS 222 million. In 2007, only 205 employees are employed by the TRDF and the expected revenues are NIS 270 million. This means the revenue per employee almost doubled.

The expected deficit of the TRDF in 2006 is NIS 40 million. This deficit includes the pension costs for 370 of the TRDF employees that retired (NIS 21 million) and NIS 7 million invested in the ERP project (ERP costs will diminish considerable over the next few years).

Another reason for the deficit is the NIS 5.7 million deficit of the Research Authority. This deficit can be reduced or balanced by increasing the overhead on research grants. However, the Technion's administration recognizes the importance of encouraging research and researchers, and believes that raising overhead will be counter-productive. We see in the covering of this deficit a direct support by the Technion of the research on campus.

Service Units

The Building and Infrastructure Testing Laboratory – as stated above, this unit was sold to an outside company and does not exist anymore as a TRDF unit.

The Metals Institute has 30 employees. 40% of its revenues are from funded research from industry, the government and the European Union. The other 60% of the revenues are from tests conducted for industry. In 2006 the total revenues were NIS 15 million and the operational profit stood at NIS 2 million.

The Land Systems Division. Due to the massive budgetary cuts in the Ministry of Defense, the division ran into difficulties. And in 2006 it incurred an operational loss of NIS 2.8 million. After negotiations with the workers union it was agreed to reduce the number of employees and the salary costs were reduced by about 20%. Great efforts were made this past year to bring in more work orders and new directions were sought to try and increase the division's revenues.

Business Development and Commercialization of Intellectual Property

The TRDF is in the midst of reorganizing and implementing effective methods for handling the commercialization of the Intellectual Property (IP) it owns. This change will reflect on the way TRDF is handling the researchers and the way we handle the investors and industry. Internally, the TRDF is attempting to make the issue of commercialization more open to the Technion researchers who have interest it this option. In fact, the number of patents submitted (totally 103) and registered (72) in 2006 is almost double the number in the previous year. In 2007 we expect another increase.

There are several internal programs which can be used to improve intellectual property and to support research with commercial potential. In this framework, we received a grant totaling $1.3 million from *The Mitchell Entrepreneurial Program*. These funds are joined by the $3 million received by the *Horowitz Fund* directed also for the support and commercialization of projects with marketable potential. The *Toronto-Technion Technology (TTT)* Fund established by the Canadian Technion Society also invests in Technion-

bred IP and supports further research and development relating to technologies developed by Technion researchers in bridging the development gap between discovery and commercialization. More recently, the Gurwin fund also started to finance research with a commercialization potential.

In October 2006 a very important agreement was signed with Mr. Alfred Mann to establish *The Alfred Mann Institute for Biomedical Development (AMIT)* at the Technion. The Technion is the first university outside of the United States selected by Mr. Mann to be a part of his vision of establishing a total of 12 such institutes at the world's top research centers. A board of directors for the institute has already been established. The Institute when fully funded will have an endowment of $100 million which will allow it to invest some $5 million/year in developing Technion's intellectual property. The institute operates under the direction of Dr. Zeev Gilkis, who has been an investment director of venture capital firm Comverse Investments.

Today, *AMIT* has already adopted one project dealing with the issue of colonoscopy and it is looking at other projects for future support. In June 2007, the board of directors will convene at the Technion and decide what other projects should be developed. *There is no question that the establishment of AMIT is a landmark step in the commercialization of the intellectual property at the Technion.*

The Azilect (Rasagalin) drug for Parkinson disease developed at the Technion recently received an approval from the American FDA and TRDF has already started to receive significant royalties from its sales. The revenues from the drug are expected to increase significantly in the future.

Prizes, Honors & Professional Appointments

- Two of our recently recruited faculty members were awarded the prestigious *Alon Fellowship* this year. The fellowships were awarded to: *Dr. Debbie Lindell*, Faculty of Biology and to *Dr. Avner Rothschild*, Faculty of Materials Engineering. *Dr. Lindell* also was awarded the prestigious Legacy Heritage Fund fellowship ("Morasha").
- Dr. *Shulamit Levenberg* of the Faculty of Biomedical Engineering is one of those named “science leader” on the list of the 50 leading scientists for 2006 of the prestigious magazine *Scientific American*. On this list are the 50 leading scientists who, in the opinion of the editors of this important journal, led the way in science and technology during the past year. Dr. Levenberg was chosen for her work on tissue engineering using embryonic stem cells.
- *Dr. Amir Orian* of the Rapoport Faculty of Medicine has been awarded the 2007 Krill Prize for Excellence in Scientific Research given by the Wolf Foundation. This Prize is given to five distinguished faculty members from Israeli universities.
- *Prof. Peretz Lavie*, Vice President for Resource Development and External Relations and faculty member at the Rappaport Faculty of Medicine has been awarded the 2006 EMET Prize in the Life Sciences in the category of Medicine for his pioneering studies in sleep research and sleep disorders, for being the founder of sleep medicine and sleep research in Israel, and for introducing changes in sleep and work routines in the country.
- *Prof. Architect Nitza Metzger-Szmuk* of the Faculty of Architecture and Town Planning was awarded the EMET Prize in Architecture for her achievements and her outstanding contribution to local culture in the promotion of site and building conservation, for raising public awareness to the importance and the value of the architectural heritage

in "The White City" of Tel Aviv and for promoting Israel's position and prestige worldwide.

- *Prof. Yitzhak Apeloig*, President of the Technion and faculty member of the Schulich Faculty of Chemistry will be awarded in July the prestigious Wacker Silicone Award. The prize is awarded every two years by the giant Chemical company Wacker, to a leading scientist in silicon chemistry. The prize was awarded to the Technion President for "his outstanding achievements in the chemistry of organosilicon compounds, which significantly broadened world knowledge in this important scientific field in general and in industry specifically."

  - *Prof. Apeloig* was also awarded an Honorary Doctorate from the Technische Universitat Berlin (TU Berlin). Prof. Apeloig received the honorary degree "in recognition of his outstanding accomplishments in researching the chemistry of organosilicon compounds, excellence in teaching, academic leadership and advancement of scientific ties with German scientists."

- *Prof. Nimrod Moiseyev* of the Schulich Faculty of Chemistry was awarded the 2006 Mifal Hapayis Landau Award for Sciences and Research in the category of physical chemistry.

  - *Prof. Moiseyev* was also awarded the Israel Chemical Society Prize for 2007.

- *Prof. Josef Itzkovitz-Eldor* of the Rapoport Faculty of Medicine has received the 2006 Mifal Hapayis Landau Award for Sciences and Research in the category of biotechnology.

- *Prof. Emeritus Abraham Lempel* was awarded the prestigious IEEE Richard W. Hamming Medal. The medal was awarded to him for his pioneering contributions to information theory, and in particular, for the development of the "Lempel-Ziv Algorithm".

- *Prof. Moshe Shpitalni*, Dean of the Graduate School and member at the Faculty of Mechanical Engineering has been awarded the German Technion Society Science Prize for 2006.

- *Prof. Moshe Shpitalni* has also named a Fellow of the Society of Manufacturing Engineers. This is a prestigious international professional society whose selection process is rigorous.
- *Prof. Rivka Oxman* of the faculty of Architecture and Town Planning has been elected as a Fellow of the Design Research Society. Prof. Oxman is one of only 14 international fellows of this prestigious society.
- *Prof. Ronie Navon* of the Faculty of Civil and Environmental Engineering has been elected as the next President of the International Association of Automation and Robotics in Construction.
- *Prof. Arnon Bentour*, Dean of the Faculty of Civil and Environmental Engineering has been elected as President of the International Union of Research Laboratories in Materials and Structures.
- *Prof. Eric Akkermans* is the incumbent of the prestigious Chair Paris-Sciences for 2006. The Chair was established 10 years ago by the Nobel Laureate De Gennes under the auspices of the Municipality of Paris. The aim of the Chair is to bring world known outstanding scientists to Paris for about a month that will give 4 lectures in their field of expertise to the open public.

Physical Development

The scope of construction is continuing to decline due to the Technion's policy to shift most of its fundraising efforts to "human capital" projects. Therefore, only very important new construction projects are being adopted at this time.

New construction on campus is based on the principles of energy and water conservation, utilization of low-depreciation materials, safety, and utilitarian maintenance features, including computerized control systems. Existing buildings undergoing expansion are being reinforced to meet modern earthquake regulations. Existing campus infrastructures (electricity, air-

conditioning, safety, water, fire-extinguishing, parking, energy conservation, etc.) are continuing to be strengthened and upgraded on a limited scale, in keeping with budgetary restrictions. The Technion is continuing to renew the façades of older buildings – particularly those covered in exposed concrete, and to preserve and cultivate the natural Carmel flora and to beautify our campus.

The Technion Green Campus Project is a project which is supported by the Technion administration as well as the Technion Student Association. The Project Council has decided on two priority topics for the coming year: energy (electricity) conservation and waste recycling. The goal is to reduce electricity consumption by 20%. Recycling activities continue with full steam. Amongst the universities in Israel, the Technion is the only university which passes the requirement of the Israeli Ministry of Environmental Protection to be officially be declared a "Green Campus Institute".

Construction Projects Completed in the Last Year

- The Sara and Moshe Zisapel Nano-Electronics Center donated by Technion graduates Yehuda and Zohar Zisapel. This building encompasses 3,200 square meters and includes modern laboratories and clean rooms.
- Schulich Faculty of Chemistry: refurbishing five existing research laboratories; construction of a new wing to accommodate offices for researchers; construction of a new northern façade and preparation rooms for the new teaching labs is nearing completion.
- Stephen and Nancy Grand Water Research Institute: the interior of the second floor that primarily houses research and teaching laboratories.
- Center for Pre-University Education: the addition of the youth wing, covering a total of 4,295 square meters, including an auditorium, teaching laboratories and classes.
- A new wing in the Faculty of Materials Engineering to accommodate the new “Titan” electronic microscope for the Russell Berrie Nanotechnology Institute.

- The last 80-bed dormitory building in the Eastern Dormitory Village, which is comprised of a total of 10 buildings having 850 beds.
- Rappaport Faculty of Medicine: new teaching laboratories on the third floor.
- Faculty of Biomedical Engineering: computer farm.
- Adapting campus buildings for the disabled: as part of the ongoing project, work has been completed in the following buildings: Faculty of Electrical Engineering, Faculty of Physics, Ullmann Teaching Center, Faculty of Aerospace Engineering, and the Campus Center.
- Upgrading of the Scholastic Center in the Wolfson Faculty of Chemical Engineering and the Faculty of Biotechnology and Food Engineering.
- Refurbishing the concrete façades of six campus buildings.
- Improving the campus-wide fire extinguishing system.
- Renovation of the Sheldon Roth Sports Plaza.

Projects under Construction

- Biotechnology Complex: addition of three new wings, covering a total of 2,883 square meters.
- Asher Space Research Institute Building, covering a total of 1,350 square meters.
- Student Union Building: complete refurbishing and construction of a new wing.
- Expansion of the Fitness Room in the Sports Center (Emerson Floor).
- Fischbach Building: renovation to accommodate the neural & biological network labs within the Lorry I. Lokey Interdisciplinary Center for Life Sciences and Engineering.
- Faculty of Biomedical Engineering: research laboratories.
- Faculty of Physics: refurbishing the existing building is continuing.
- Life Sciences Experimental Research Facility.

- Department of Education in Technology and Science: completion of laboratories and teaching classrooms.
- Center for Pre-University Education: renovation of the restaurant and offices.
- Adapting campus buildings for the disabled: Rappaport Faculty of Medicine, Faculty of Mechanical Engineering, Faculty of Industrial Engineering & Management, Sports Center.
- Refurbishing concrete façades of four campus buildings.
- Schulich Faculty of Chemistry: beginning of a massive renovation of the Faculty laboratories and buildings.

Projects in the Planning Stage

- Stephen and Rita Emerson Life Sciences Building to house researchers of the Lorry I. Lokey Interdisciplinary Center for Life Sciences and Engineering.
- Graduate Dormitory Village: a major construction project with 215 apartments involving an estimated investment of $35 million.
- Rappaport Faculty of Medicine: construction of new research laboratories and renovation of research laboratories on the fourth floor.
- Samuel Neaman Institute: offices and events roof.
- Renovation of the Rappaport Faculty of Medicine Experimental Research Facilities.
- Faculty of Biology: renovation of three research laboratories.

Public Affairs

This year was a phenomenal year in terms of fundraising and we raised in actual donations and in commitments an astounding $250 million for the benefit of the Technion, its students and in turn, the State of Israel. This is the best year ever in fund-raising in Technion's history and the largest sum raised in a single year by any Israeli university.

The Division of Public Affairs and Resource Development (PARD) continues to advance the mission and goals of the Technion through the main activities listed below:

- Raise and strengthen the Technion's public profile in Israel and abroad.
- Initiate and pursue development activities around the world in cooperation with the Technion Societies.
- Production of fundraising and public relations marketing material.
- Ongoing reports to donors and foundations on their respective projects and gifts.
- Encourage visits to the Technion by groups and individuals.
- Outreach to alumni in cooperation with Technion Societies.

This year the projects unit prepared 100 projects for fund raising. The projects were prepared according to priorities set by the Technion management. Out of all the projects sent to the different societies, 96 projects were embraced. The projects dealing with support for graduate students are a top priority and all societies have responded to this priority. 30 different donors took upon themselves to provide this support in the sum amount of $9 million.

The Alumni Liaison Office organized 12 reunions for different faculties and gave assistance to faculties organizing their own reunions. This year, the office organized a special reunion for those who studied at the Technion 60 years ago. As a result of alumni reunions, the Technion has received several substantial donations from alumni who attended these events.

A special data base tracking accomplishments of alumni was established. This data base is updated from announcements in the press and appropriate letters are sent out to the alumni.

The Department of Donor Relations is responsible for sending out updates to donors regarding projects they have donated to and this year we continued our unique tradition of sending thank you letters to donors, from students who are the recipients of their scholarship or fellowships.

In the year of 2006, an amount of 2,000 thank-you letters were sent by recipients of scholarships and 250 letters from graduate students, 81 Chair reports were sent and 233 reports on various projects were sent to donors as well as 200 thank you letters and updates.

The Technion, for the fourth year in a row, continues to be the most positively cited institution of higher learning in the Israeli press. The 100 press releases issued to the press resulted in around 550 items in the Israeli press as well as hundreds of items worldwide, especially in the USA and Europe.

In 2006, the Coler-California Visitors Center was honored to have 6,700 visitors. Last year we had over 9,500 visitors and the reason for the decrease is the Second Lebanon War which broke out last summer.

The “Technion”, our Hebrew-language magazine, appears three times a year and reaches the homes and offices of alumni as well as key persons in Israel’s private and public sectors. The magazine can also be read on the Technion’s Internet website. The magazine has been widely quoted by the most popular news internet site in Israel – Y-Net. The "Focus", our English language magazine appeared three times this year and is distributed to all our societies abroad.

This year, we published a new Technion Prospectus and I highly recommend reading it – it is a must for all. The magazine contains a wealth of important information about Technion and its activities.

Since October 2006, Mr. Shimon Arbel, the Director of PARD is the head of the Board of Governors Office. The Board of Governors Office is initiating several measures to enlist a new generation of voluntary leaders to the Board of Governors and the different societies worldwide.