New Heights

Meet the New President
Prof. Ron Robin

Israel: An Ocean of Possibilities in Sight
With the New Arrival of Saab Seaeye ROV

New Home for the Faculty of Law
45th BOARD OF GOVERNORS MEETING

JUNE 6-8, 2017
Welcome Back
Prof. Robin

Israel Ushers in a New Realm of Deep-Sea Exploration

Cornerstone Laid for the Faculty of Law Building

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Friends Around the World
Professor Ron Robin became the University of Haifa’s new president on October 1, 2016. He comes to us from New York University, where he served as the Senior Vice Provost for Global Faculty Development, overseeing the establishment of NYU international campuses in Abu Dhabi and Shanghai. Prior to his tenure at NYU, Prof. Robin spent 20 years teaching at the University of Haifa, and served as the Dean of Students for five years.

What is your vision for the future of the University of Haifa?

R.R. - A great university should recruit aggressively top academic talent while supplying favorable research conditions. This baseline sets the tone for a ‘republic of scholars’ consisting of a coalition of different academic domains, each bringing to the table their own contributions to the organization. I believe that careful planning and investment in these foundations will inspire a more powerful sense of community—one that is strong enough to transform the university into a magnet for the best and brightest and a breeding ground of knowledge and innovation.

What are some of the University priorities you plan to address?

R.R. - It is imperative for a research university to invest in its human capital and leadership and to have flexibility in multiple disciplines. Over the next few years the University has plans to recruit some 200 new faculty members. The previous administration, led by Mr. Amos Shapira and Prof. David Faraggi, has made great strides in launching a multi-year program for absorbing a new generation of faculty and we intend to carry on their good work. At the same time, we will continue to invest in cutting-edge infrastructure and concentrate our efforts into developing generous scholarship programs for outstanding undergraduate and graduate students, and post-doctoral fellows.

What are some of the challenges you foresee?

R.R. - The steady decline of enrollment in the studies of humanities is a big problem today. The humanities are integral to creating good science as they provide a vital source of critical views. The surge in “big science” is another major challenge for institutes of higher learning, as it demands significant investment in capital equipment.

The University of Haifa welcomes back Prof. Ron Robin, returning to us as the University’s eleventh president

“As academics, we approach problems by delving into the complexity of human nature and draw from it our insights that we could have never achieved solely from the tabulation of data.”

- Prof. Ron Robin, President, University of Haifa
What sets the University of Haifa apart from other Israeli universities?
R.R. - In addition to creating scientific knowledge, our main mission is the expansion of professional opportunities for all members of society. We embrace the rich tapestry of communities that make up Israeli society.

We have launched an ambitious shift into the natural sciences. One of our signature programs is marine sciences. Learning from the sea is of critical importance not only to the University but also to Israel in general, as it pertains to sustenance, transportation, wealth, sustainability and innovation. And to this end we need to continue to cultivate this field by attracting top talent from around the world. We are also a recognized leader in homeland security training, research and education. We are the proud academic host of the IDF National Security College where senior personnel from the military and other branches of the security forces and intelligence community study for graduate degrees.

Our campus is a true microcosm of Israel’s unique ethnic-religious-linguistic social mosaic. Which occurs only at the University of Haifa. Nurturing this unique diversity will promote security and stability within our nation, and serve as an example for co-existence both in Israel and the entire region.

What brings you back to Israel and the University of Haifa?
R.R. - Part of our decision was based on family – our children and grandchildren live in Israel, and we want to be closer to them. As for returning to the University of Haifa, I am deeply indebted to this institution. It was here that my academic career really took off. The University provided me with an opportunity to explore my research interests and develop my leadership skills, and really encouraged me to spread my wings.

New Year’s wish for students and staff
R.R. - That you will all come to regard this university as more than just a place of work or academic enquiry, but as a great community – a home away from home – one that cultivates social cohesion and mutual tolerance and respect in our society.
Professor Gustavo Mesch is a pioneer in the field of sociological studies of the Internet, examining social effects of new media. After completing his BA and MA degrees at the University of Haifa, he went on to earn his PhD in Sociology at Ohio State University. He returned to the University of Haifa, and has taught here until now. Since 2013 he has served as the Dean of the Herta and Paul Amir Faculty of Social Sciences, which has grown into one of the largest faculties on campus.

Why did you choose to study at the University of Haifa?
G.M. - The rumor at the time was that the University of Haifa had a strong social sciences faculty - which is still true to this day! Once I got here, I found a vibrant department with faculty and students from diverse backgrounds including Arab and Jewish Israelis, Americans and Russians and I felt that I had a place here, that I can fit into all this, being an immigrant myself from Argentina. The sense of openness to unconventional ideas and the unique cross-cultural backdrop convinced me to pursue my academic career here.

What makes this university attractive to young researchers?
G.M. - The University of Haifa is first and foremost a research university that is young in spirit - a place where traditional walls between departments and faculties were never fully erected. This makes it much more conducive for interdisciplinary and cross-disciplinary studies, paving the way for the easy flow of informal exchanges. We are currently in the midst of a major recruiting effort to hire excellent faculty to expand and support research at the University in traditional as well as in newly emerging fields. I am particularly interested in implementing a system for the identification of talented students in earlier years of their undergraduate degree who would make excellent graduate candidates.

What are the priority issues you plan to address?
G.M. - I would like to put efforts in striking a balance between undergraduate and graduate education while promoting research-oriented (thesis) degrees. For this we must continue to invest in infrastructure as well as in building on our human capital. We must also leverage our strengths in the fields we excel in, like marine sciences, neurobiology, education, humanities, law and political science, and further explore collaborations with academic institutes in Israel and overseas.

New Year’s wish for students and staff?
G.M. - Halevai (Hebrew for “my greatest hope”) is a song composed by two popular Israeli musicians. The chorus “If only...” is a wish for peace and coexistence. I would like to wish faculty, students and staff health, happiness, peace and prosperity for the upcoming year. We have important challenges to face and together we will make the University of Haifa even better.
HAIFA-SHANGHAI CONNECTION
stronger than ever

The ECNU-UH Joint Translational Science & Technology Research Institute – the first large-scale Israeli academic project in Shanghai – marks a massive commitment to academic collaboration in mutual areas of interest between two universities and two nations.

The establishment of a joint research center between the University of Haifa and East China Normal University (ECNU) signed in March 2016 is well underway, with construction of the new building commencing earlier this year. The ECNU-UH Joint Translational Science & Technology Research Institute will be the first Israeli academic project in the municipality of Shanghai funded entirely by the Chinese government and private donors, including philanthropist Mr. Shen Wen, Chairman of Zijiang Group.

“So far there have been five visits to ECNU, with some 70 members of staff and faculty participating. The aim of these visits was to begin to formulate new research collaborations and I am happy to report that some have already begun to submit joint grant proposals,” announced Prof. David Faraggi, immediate past Rector of the University of Haifa, in his report made during the University of Haifa’s 44th Board of Governors Meeting in June. “These collaborations provide access to greater technological resources, and open up new funding and recruitment opportunities for obtaining research grants and scholarships for graduate and post-doctoral students.”

The international partnership with ECNU has led to visits by several senior governmental delegations from Shanghai municipality government with University of Haifa’s senior leadership, including a recent meeting with Mr. Zhu Zhisong, the District Governor of Minhang who arrived to the campus in late August with six senior Chinese officials. At the meeting, the Governor reaffirmed the commitment of his government to the academic partnership between ECNU and the University of Haifa. “This is an important initiative for China and Israel,” stated Governor Zhu. “Both nations stand to benefit from the creation of knowledge, scientific innovation and cultural exchange between students and academics.”

The University of Haifa has chosen Prof. Edi Barkai, the Dean of the Faculty of Natural Sciences, to co-head the joint center. The ECNU-UH Joint Translational Science & Technology Research Institute will serve as a joint base for researchers as well as a training ground for doctoral students from both ECNU and the University of Haifa in the areas of life sciences, environmental science and information systems.

Located at the Zizhu International Education Park on the ECNU campus, the new building will contain over 53,000 square feet (roughly 5,000 square meters) of research and office space, including state-of-the-art laboratories, computerized classrooms and seminar rooms as well as individual and collaborative workspaces for graduate students. The total investment in this building project is estimated at $3 million.
Antiochia Hippos, an ancient Roman city located on a hill overlooking the Sea of Galilee, may be one of the most remarkable and well-preserved archeological sites in the Middle East.

A team led by Dr. Michael Eisenberg of the Zinman Institute of Archeology has made recent headlines in the international media with two major archeological discoveries at the site. The first, a 2,000-year-old bronze mask of the mythical Greek god Pan, is the largest mask of its kind ever found. The mask made Biblical Archeology’s “The Top 10 Biblical Archeology Discoveries in 2015.” The second finding, a monumental Roman Gate, suggests that the gate structure leads to a large, sacred ritual compound connected with the cult of Pan or one of the rustic gods.

Antiochia Hippos, believed to have been founded around 160 BC during the height of the Hellenistic Age, today is part of the Hippos–Sussita National Park. In its heyday, the city dominated a large region and was a famous city of the Decapolis, a region of 10 Greco–Roman poleis on the eastern border of the Roman Empire. Destroyed in 749 CE by a devastating earthquake, Hippos lay buried and undisturbed until excavation began in 2000. The site’s enduring basalt construction and relatively isolated location atop Mount Sussita has preserved it much like it was left in the 8th century, making it one of the most remarkable classical sites in the Middle East for archeologists to explore.

According to Dr. Michael Eisenberg who heads the expedition at Hippos, “The mask, and now the monumental gate near where it was found, are continuing to fire our imaginations. This massive gateway nestled between two towers measuring over 20 feet high is evidence of an extensive mysterious compound and possibly a sanctuary for the worship of Pan or his fellow Dionysus, the god of wine. What rituals took place here at Hippos? To answer that question we will have to expand our excavation work and enter it, which may take years to expose.”

The current excavation season opened in July with 70 participants from Israel and around the world. Dozens of academics and volunteers arrived from the USA, the UK, Japan, Australia, France, Germany and Holland for the dig; a large number of them are returning volunteers.
“Mysterious gateway outside the city walls (does it lead to a sacred ritual compound?), largest bronze mask of the Greek god Pan ever to be found, seven churches and unique ‘bastion’ are all part of the ancient monumental complex found at Hippos.”

- Dr. Michael Eisenberg of the University of Haifa, Director of the Hippos-Sussita Excavation Project

**The Zinman Institute of Archeology**

Research and excavation work at the Zinman Institute of Archeology focuses on four major chronological periods: Prehistoric, Biblical, Classical and Middle-Ages. Founded in 1988 through the generous donation of longstanding University of Haifa friends, Betty and Philip Zinman, it is currently headed by Prof. Mina Weinstein-Evron.

**Other Major Excavation Projects**
- **Mount Carmel Caves Project** at Tabun, Jamal, el-Wad and Skhul on Mount Carmel, directed by Prof. Mina Weinstein-Evron
- **Tel Dor Excavation Project** on the Carmel Mediterranean Coast, directed by Prof. Ayelet Gilboa

To continue its excavations, surveys, and theoretical studies the Zinman Institute of Archeology is in need of further support. For more information please contact the Office of the Vice President for External Affairs and Resource Development.
In a world where technological progress generates massive amounts of digital data, leaner, faster and more affordable solutions are needed to help sort and analyze information in real-time. At the University of Haifa, Dr. Dan Feldman and his research students are using coresets (data reduction algorithms) to support better business intelligence and optimize the performance of simple robots for improved customer service and increased cost-savings.

‘Big Data’ describes the volumes of data sets streaming from all aspects of our lives in unprecedented amounts, collected from posts on social networks, readings from sensory technologies, digital pictures and videos, to GPS signals from mobile phones and other data sources estimated at 2,500,000,000,000,000,000 a day! Commonly used software tools are incapable of processing all this information in real-time.

Dan Feldman, Assistant Professor at the Computer Science Department, is introducing a new approach to solving ‘big data’ problems plaguing the IT industry. “I hope to bridge the gap between mathematical theory and engineering applications,” explains Feldman. “Coresets are a new paradigm that can help us process more accurate results of bigger and more complex data sets faster than ever. Unlike compression technique (like ZIP or MP4), coresets is a problem dependent data reduction technique that allows us to solve the problem faster by order of magnitude. With smaller datasets, running times are improved while only marginally compromising the original data.”

Feldman and his students are using coresets (as a statistical computation tool) to solve fundamental problems emerging in Big Data that affect machine learning performance through robotic projects at the Robotics and Big Data (RBD) Lab. One of these projects involves autonomous navigation of ordinary toy drones using low-cost (but very safe) ‘simple’ hardware with strong novel algorithms. Other projects include the development of gesture control armbands – the future of wearable technology and human–computer interaction that lets you control technology (like your phone, computer, and even industrial machines) hands-free using only gestures and motion. The group has also recently begun to apply coresets in determining differential privacy in solving cloud computation security challenges. “The idea is to extract statistical data from large datasets while preserving the privacy and anonymity of its users – we refer to it as private coresets or sanitized database,” relates Feldman.

According to Feldman, “The main breakthrough in this field is that we now have a general framework coreset for any number of processing challenges. My goal is to bring this to the attention of engineers, analysts and data scientists so that they may apply them to their research or in solving complex business problems.”
At the Robotics and Big Data (RBD) Laboratory, a team of Computer Science students are developing inexpensive real-time tracking systems that will turn ordinary toy drones into autonomous drones, capable of navigating through complex grounds and buildings. Soliman Nasser (PhD student) and his lab partner Ibrahim Jubran (MSc student) are developing state-of-the-art algorithms based on coresets that will be able to track and localize flying robots. With the help of research assistant Michael Volgin and BSc student George Kesaev, the team succeeded in creating a low-cost tracking system to ultimately replace commercial systems that are up to a hundred times more expensive.

The main challenge is stabilizing the drones using large amounts of data collected from cheap sensors such as 3D cameras, electroencephalography (EEGs) and inertial-measurement unit (IMUs). This is achieved by calibrating the movement of the drone to a carefully chosen set of points or markers (such as visual features or even stars in the sky) collected by sensors within a virtual world. Defining the automatic selection of these ‘smart’ set points is a key challenge. Once this application runs smoothly it can be adapted to indoor or outdoor environments. The team is also working on the development of a low-cost docking surface for the drone to be able to recharge easily and swiftly, as its flight time is considerably short at 7-8 minutes.

Imagine having a small flying robot assigned to help you navigate through complex grounds and large buildings such as airports, shopping malls, hospitals and even university campuses – in such a world you’ll never get lost again.

ABOUT THE TEAM

Soliman and Ibrahim are both graduates of the prestigious Etgar Program, which selects outstanding high-school students to complete an undergraduate degree in computer science at the University of Haifa in tandem with their school studies. Last November they won first place in the HACKaDRONE college student competition sponsored by the Moona Technology and Space Center in the Western Galilee for their ‘parking drone’ – an autonomous quadcopter capable of finding a parking space best suited to the driver in terms of distance and other pre-defined preferences via image processing algorithms.

Michael and George are both new immigrants. Michael arrived to Israel from Russia when he was 18 years old. After completing his army service, he began his BSc degree in Computer Science at the University of Haifa. Along the way he overcame various financial challenges which did not deter him from continuing his studies. George came to Israel on the “Na’ale” Program (Hebrew acronym for “Youth who Immigrate Before their Parents) from the Ukraine when he was only 14 years old. After completing his army service he enrolled in the Faculty of Computer Science at the University of Haifa.

The RBD Lab also attracts international students from leading universities to conduct their research under the guidance of Dr. Feldman. One such student is a senior Tufts University undergrad named Tomer Lee Shapira who came for a two-month internship program through ‘Onward Israel’ run by the Jewish Agency. He is working on a home automation security network using simple, low-cost parts that will enable a ‘twist the lock’ shut of the front door through a cell phone.
or centuries we have depended on the ocean for food, transport and our livelihood, with ocean-based businesses contributing more than $500 billion to the global economy. Today, our seas and oceans are serving as increasingly viable sources of energy with their vastly untapped natural gas reservoirs and potential for renewable resources, such as wind, wave and tidal power. Yet, we have barely begun to scratch the surface of deep-sea exploration.

The discovery of large gas reserves nearly five years ago off of Israel’s Mediterranean coast captured public attention and spurred the scientific community into deep-sea exploration. Until recently, the technology needed to reach remote and deep-water environments was largely inadequate.

And now a new era has begun. Thanks to the generous support of The Leona M. and Harry B. Helmsley Charitable Trust, the Leon H. Charney School for Marine Sciences will welcome Israel’s first underwater Remotely Operated Vehicle (ROV) at Haifa Bay in Fall 2016. The newly purchased state-of-the-art Seabreacher by Saab is one of the most powerful ROVs in its class. Outfitted with the most advanced multi-sensory imaging and data collection instrumentation (including robotic arms), it offers exceptional maneuverability - even in strong currents - and can perform delicate sub-sea sample collection tasks and installations while being controlled in real-time by researchers. The ROV is designed to operate at intense pressures for extended periods and at depths of up to 9,800 feet (3,000 meters) below the sea surface. To put these depths into perspective, that’s the length of 16 football stadiums or a 500-story building, where pressure on a single fingernail is equal to 660 pounds (300 kg)!

"First and foremost, this powerful ROV will be used for scientific study, education and research to advance our knowledge of the ocean," explains Prof. Zvi Ben-Avraham, Founding Director of the Leon H. Charney School of Marine Sciences and Head of the Mediterranean Sea Research Center of Israel (MERCI). "It will facilitate studies in a wide range of fields, from diverse disciplines within oceanography, including marine and environmental biology, geology, and geophysics, to the study of maritime civilizations. We also intend to use it to further the national interest in exploring offshore natural gas and deep sea deposits of methane hydrates and for coastal monitoring operations. It will serve as a platform for testing various technological developments such as underwater propulsion, acoustic sensors, optical imaging systems, robotic manipulators, and as a teaching tool for researchers, students and technicians."
The Leona M. and Harry B. Helmsley Charitable Trust’s grantmaking program in Israel supports leading institutions and initiatives that seek to strengthen the nation’s leadership in scientific, technological, economic, security, and environmental challenges and opportunities resulting from the rapid development of the Eastern Mediterranean offshore.

In May, 2014, the Helmsley Charitable Trust awarded the University of Haifa a $7 million grant to establish the Helmsley Charitable Trust Mediterranean Sea Research Center in order to advance the fields of marine sciences and offshore energy development in the region, and to further strengthen the University’s leading role in these fields. The grant has enabled the University to establish a shallow-water coastal monitoring station at S’dot Yam and a deep-sea coastal facility at the Israel Oceanographic and Limnological Research Institute. The funding was also used towards the purchase of a remotely operated underwater research vehicle, the establishment of state-of-the-art marine laboratories, expansion of international collaboration efforts, and support of student scholarships. The generous funding will allow the Center to expand its future research agenda to include initiatives that focus on climate and sea level changes, sustainable underwater energy sources as well as environmentally responsible coastal development.

Over 200 guests attended the dedication of the Helmsley deep-sea facility at Shikmona, held during the University of Haifa’s 44th Board of Governors Meeting in June. Amos Shapira, immediate past President of the University of Haifa, said, “Today we are touring new laboratories and facilities which were only a dream – a hopeful wish – a couple of years ago. The new Helmsley Center – advancing interdisciplinary research in fields from marine geophysics and marine biology, to offshore energy exploration, environmental studies and maritime law – is a remarkable achievement for the University, and a great achievement for the State of Israel and for science worldwide.”

Scientists believe that through ocean exploration we will be able to ‘fill the gaps’ of information needed to better understand ocean dynamics that affect environmental change, which in turn will lead to well-informed policy decisions. Deep-sea exploration may help us predict climate change as well as extreme events such as tsunamis, and could reveal more about the mysterious life forms living in deep waters with therapeutic potential for the development of life-saving drugs and therapies for cancer and other degenerative diseases.

The Mediterranean Sea, with its unique marine ecosystem and abundant biodiversity, has been a cradle of world civilization throughout the ages and a focal point for world affairs till today. Almost completely surrounded by land, the Mediterranean is a puzzle of tectonic regimes and a rich basin home to unique maritime species and abundant natural resources just waiting for discovery.

– Prof. Zvi Ben-Avraham, Founding Director of the Leon H. Charney School of Marine Sciences at the University of Haifa and Head of the Mediterranean Sea Research Center of Israel
One of the highlights of the 44th Board of Governor’s Meeting was the cornerstone laying ceremony for the new home of the Faculty of Law. “Our faculty has literally outgrown its current facilities,” stated Prof. Gad Barzilai, Dean of the Faculty of Law. The ceremony was attended by special guests Supreme Court Justice Salim Joubran, a past honorary degree recipient from the University of Haifa, Chief Justice of the District Court of Haifa Yosef Elron, BOG members from around the world, faculty members and students.

The seed funding needed for the construction of the new Faculty of Law building has been made possible by generous gifts provided through the Friends of the University of Haifa from Switzerland and France. According to Mr. Yariv Sultan, Vice President for Development and External Relations, “This project is an example of the dedication, collaborative efforts and creative fundraising initiatives led by our Swiss and French Friends Associations.” Mr. Alex Karpov, representing the Swiss Friends Association, and Dr. Eyal Chvika, his counterpart on the Board of the French Friends Association, who were instrumental in launching the building campaign, unveiled the plaque to mark the site of the new faculty building.

“Having our own building will enable us to better meet the needs of our ever-growing student body while strengthening student-faculty collaboration. It will provide a place where students, researchers and faculty can come together to study, learn, and deliberate,” noted Prof. Barzilai. The law program at the University of Haifa is one of the fastest growing academic programs on campus, with over 1,000 law students at all levels – LLB, LLM and PhD.

“The law is the backbone of our democracy,” emphasized Justice Salim Joubran at the dedication. “But, it is equally imperative that we promote respect for human rights. The University of Haifa and the Faculty of Law are outstanding examples to the rest of Israel and to the world that Jews and Arabs can peacefully coexist, learn and work with one another towards achieving a common good.

-Salim Joubran, Supreme Court Justice

The University of Haifa and the Faculty of Law are outstanding examples to the rest of Israel and to the world that Jews and Arabs can peacefully coexist, learn and work with one another towards achieving a common good.

The University of Haifa’s Faculty of Law is the youngest university law school in the country. Established in 1992, it quickly grew to become one of Israel’s leading law schools offering path-breaking legal education, innovative legal clinics and world-class research centers, including the Minerva Center for the Study of Rule of Law Under Extreme Conditions, the Haifa Center of Law and Technology, the prestigious International Academy for Judges, supported by The David Berg Foundation, and the new Center for Cyber, Law and Policy.

The Faculty is known for its progressive curriculum that reaches beyond teaching basic legal concepts and doctrine. It imparts knowledge from related disciplines needed by future legal practitioners and scholars to navigate challenges to social justice and equality posed by a swiftly changing global society.

The new 31,000 square foot building will house under one roof state-of-the-art teaching and research facilities that will include computerized classrooms, an auditorium, faculty offices and facilities for legal clinics and research centers.

Additional support is needed to help complete this building project. For more information please contact the Office of the Vice President for External Affairs and Resource Development.
Since opening its doors five years ago, the Clinic for Law and Educational Policy has become a leading force in protecting the education rights of children and teens from disadvantaged communities through advocacy, high impact litigation and legislation.

“Our students conduct real clinical practice and bring their experiences back to the classroom, contributing to reflective legal education and discourse,” explains Dr. Tammy Harel Ben-Sahar, Academic Director of the Clinics for Law and Social Change. “The clinics provide them with an exceptional opportunity to learn about their true responsibilities and roles as lawyers. The work they do in the Clinic has a profound effect on them. I have often heard it said by students that participating in the legal clinics has been one of their most meaningful and life-altering experiences in their legal education.”

Every year, in the months of August and September, in preparation for the new school year, the Clinic for Law and Educational Policy operates a hotline to grant legal assistance and representation to parents and students whose rights have been infringed upon. This year, the students, under the supervision of Advocate Haran Reichman, the Director of the Clinic for Law and Educational Policy (and the Professional Director of the Legal Clinics), have dealt with about 100 cases, among them the discriminatory refusal of the town of Petah Tikva to enlist five children of asylum seekers to kindergarten. Other cases include a student with epilepsy who claims that he is not receiving the medical care needed in order to safely attend school, several cases of charging of unlawful fees in public schools, grouping students by academic ability in public schools, inadequate learning conditions in Arab schools, and many other issues. “Our students work tirelessly,” added Haran Reichman. “Thanks to their efforts and expertise, the educational rights of many children have been realized. The Clinic will continue to struggle for equality in education in Israel.”

The Clinic for Law and Educational Policy is one of eight legal clinics at the University of Haifa, all of which receive partial funding from the Municipality of Haifa for their activities. The clinics provide legal advice and representation while promoting social change and the rights of minorities, the disabled, women and the elderly, in criminal law, technology, housing, education and environmental policy. The aim of all of the clinics is threefold: to utilize the law in order to promote social justice and the common good, to complement the students’ legal studies and instill in them social responsibility as future lawyers, and to function as research and investigative laboratories of law.

**Clinics for Law and Social Change:**
- The Legal Feminism Clinic
- The Law and Educational Policy Clinic
- The Law and Technology Clinic
- The Legal Clinic for Human Rights in Society
- The Legal Clinic for the Rights of the Arab-Palestinian Minority
- The Public Defender and Criminal Justice System Clinic
- The Clinic for Law and Maritime Resources Policy
- The Legal Clinic for the Rights of the Elderly
3D-IMAGING Helps recreate the past

University of Haifa visualization technologies help archaeologists piece together information from ancient civilizations.

If a picture is worth a thousand words, a 3-dimensional picture may be invaluable – especially to archaeologists who seek to reconstruct cultural objects from shattered or broken pieces. Today, 3D imaging has become critical to applications in medical and scientific visualization, urban planning, architecture and design.

Prof. Ilan Shimshoni and his team at the Department of Information Systems in collaboration with the University of Haifa’s Zinman Institute of Archeology and Prof. Ayellet Tal from the Technion–Israel Institute of Technology, have developed a 3D imaging software that mimics traditional archeological manual drawings, enabling the efficient scanning of dozens of objects per day. The system provides rapid visual recognition of artifacts, exposing grooves and ridges and illuminating patterns through 3D color shading, for a more realistic and accurate illustration of objects. As a result, it drastically reduces costs and time associated with traditional documentation methods which are to a large extent manual.

Shimshoni and his colleagues are participating in a cross-disciplinary European consortium. The GRAVITATE Project is an initiative tasked with creating a set of 3D visualization tools that will improve archeological data collection while providing opportunities for cross-referencing which may lead to greater insights into relationships between past societies.

“We hope that one day the software will be able to read ancient scripts inscribed on artifacts and cross-reference this information across collections,” explains Prof. Shimshoni. As part of the GRAVITATE initiative, the Israeli group is developing additional software tools to improve archeological processing and data management.

These visualization tools will allow archaeologists, historians and museum curators to reconstruct shattered or broken cultural objects, identify and reunify parts of a cultural object that may have been separated across collections, and recognize visual associations between cultural artifacts to improve the process of piecing history back together.

Illustrations courtesy of Prof. Ilan Shimshoni

What’s GRAVITATE?
Gravitate stands for Geometric Reconstruction And noVel semantIc reunificaTion of culturAl heriTage objEcts. It is funded by the European Union’s Horizon 2020 research and innovation program.
The 2016 Annual Student Exhibition at the School of the Arts showcased an inspiring and impressive display of modern art, abstract and surrealistic paintings and artistic works incorporating video and digital influences.

One noteworthy project was a self-portrait series by undergraduate student Shada Zuabi, whose work pioneered a new digital art medium. “Shada developed a unique drawing and painting language by constructing realistic images from thousands of tiny color spots painstakingly drawn side by side and one over the other,” explains Aya Ben Ron, Shada’s art instructor and academic advisor at the School of the Arts. “What resulted was a multi-layered painting with two simultaneous impressions: a carefully constructed image and a ‘digital pixel’ effect.”

In her series of five digitally drawn paintings, Shada poses as a woman from different Israeli identity groups: Jewish orthodox, Muslim Arab, Circassian, Ethiopian and Russian – each time wearing a different ‘mask’ to suit the persona. The paintings were made in Photoshop using a pressure-sensitive digital pen.

“My project was as a journey of self-discovery,” notes Shada. “I chose to explore my identity by experimenting with my own reflection. I attempted visual role-playing, embedding my portrait into stereotypes of Israeli women. I began with an identity that is furthest from my own – the first self-portrait was me as an Israeli-Ethiopian woman.”

“While Shada masquerades, peeling off layers of her identity and disguising her skin tone in an attempt to suit the stereotype on her journey to self-discovery, her portraits imitate a photograph or digital painting that deceives the viewer. Intelligently and artfully, Shada lures the viewers into questioning their own perception – is the woman portrayed in the series the same individual or is it a collection of different women? And am I looking at a drawing or photograph?” asks Ben Ron. “What makes this project especially alluring and insightful is the distinct integration and pairing of the technique to the content which causes viewers to dwell on the question of identity, which in reality is also not always easily definable.”

Shada Zuabi grew up in the Muslim village Naora (in Hebrew נאורא, in Arabic الناورة) in a traditional and supportive Muslim home. “My parents have always been my greatest admirers,” recalls Shada. “Through–out grade school and then in high–school they encouraged me to develop my creativity and sent me to art workshops at neighboring Ein Harod (housing one of the first art institutes in Israel). I chose to study art at the University of Haifa because of the wonderful facilities available to young artists. This is a very special school – a whole building dedicated to the arts... on any given day you will see artwork on display, theatrical rehearsals and hallways filled with music.”

Shada is undecided as yet on her plans for the future. She is considering graduate studies in fine arts or art therapy; one thing is certain, her future will be connected to art.

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**When the ‘Digital’ Medium is the Message**

Shada Zuabi’s innovative digital art project explores the complex nature of Israeli identity
The concept of “Tikkun Olam” is not merely a slogan at the University of Haifa. Since its founding nearly a half century ago, the University’s mission of social responsibility has been paramount to its commitment to academic excellence in teaching and research. The University supports and develops a wide range of academic and extracurricular programs that provide students and faculty with opportunities for building unity in the community and making a positive social impact promoting multiculturalism on campus, in Haifa, and well beyond the city’s borders. In the process, these programs generate a spirit of social cohesion that shapes the future leaders of social change.

Community Projects

The Flagship Program combines faculty members, students and administrative staff who work towards reducing levels of polarization, promoting solidarity and encouraging the integration of marginalized groups in Israeli society. The Flagship Program, led by Prof. Roni Strier from the School of Social Work of the Faculty of Social Welfare and Health Studies, is a first of its kind in Israel. The program is conducted in cooperation with the Municipality of Haifa and the Leo Baeck Education Center.

“The program underscores the connection between community involvement and excellence in cultivating social capital and research,” explains Prof. Strier. “It combines teaching, academic research and social activism in the community through the integration of academics (students and faculty), professionals, social activists and community members in community action projects.” Since its establishment five years ago, more than 1,000 University of Haifa students from all our faculties took part in hands-on community work and socially-oriented academic courses. In addition, a diverse group of 150 professionals, social activists and residents of inner-city neighborhoods participated in community projects.

During the 2016 Board of Governors Meeting, the German Friends hosted a reception for students participating in its sponsored academic projects, six in all. The reception featured greetings by the German Ambassador to Israel, H.E. Dr. Clemens von Goetze (a guest of the Haifa Center for German and European Studies), a dialogue about empowerment and coexistence with Sonja Lahnstein-
on-site courses offered by the program, dealing with real issues including life–skills training, employment, education, child development, and public health. The experiences of participants aptly sum up the profound impact.

“We were here and the best lecturers came to us, the best tools and the richest knowledge were made accessible to us – in our homes!” – Program participant.

“The course strengthened my sense of commitment to the community. I now understand that the way to social change is through cooperation with the community, this way their voice can be heard.” – Social work student.

The Jewish–Arab Community Leadership Program, today in its 11th successful year, facilitates dialogue and multi-cultural social interaction between Jewish and Arab students. Generously sponsored by the German Friends Association and the David and Inez Myers Foundation, the program seeks to confront deep-seated prejudices, foster respect and tolerance, and develop joint leadership for social change. Student participants take part in weekly meetings, academic training courses throughout the year, and volunteer in mixed Arab–Jewish neighborhoods.

“The Jewish–Arab Community Leadership Program has opened up to me a whole new world of cultures, customs, and values... I have learned to become more accepting of others ....” notes Bat–El Ashkenazy, BA student majoring in Political Science and Middle East Studies.

“I believe that the program succeeded in building a group of leaders who are creating change with the help of positive energy, knowledge, support and tools which the course and the experience being in the program provided,” related Weaam Shaheena, BA student in the Department of Mathematics.

Academic Empowerment Programs
‘Access for All’ is a unique program opening up opportunities for higher education to adults from difficult socio-economic backgrounds, effectively promoting equal access to a university education. Today, some 2,400 students participated in the program all over Israel offering various annual courses in law, medicine, psychology, economics, and business administration given by 95 graduate instructing students. ‘Access for All’ at the University of Haifa is in its second year, with over 400 students. Each year 100 new students join the program, with completion rates reaching 80 percent. The program is generously sponsored by Doron Livnat, an honorary doctorate degree recipient of the University of Haifa, the Matanel Foundation and the Planning and Budgeting Committee (PBC) for the Council of Higher Education in Israel. Both students and teaching instructors have benefited tremendously from their participation in the program.

“I learned more about myself through ‘Access for All.’ The program empowers you. I guess before I didn’t believe in myself but now I see that I can succeed... and it all started here.” – Program participant.

“I realized that the program is actually helping me – it empowers me and provided me with self-confidence and has made me what I am today. It’s like magic, we truly are promoting society.” Teaching instructor.

The International MA Program in Child Development recognizes that empowering children from underprivileged communities is a critical investment for a brighter tomorrow. Offered by the Center for the Study of Child Development in conjunction with the University’s International School, the program attempts to do just that – to train and prepare professionals to lead and advance initiatives in developing countries to improve the lives of children at risk. To this end, the curriculum was designed to support the UN Millennium Development Goals global partnership to reduce extreme poverty. This summer, the International MA Program in Child Development, generously supported by Mr. Eytan M. Stibbe (Vital Capital Fund) and the Open Society Foundation, celebrated the graduation of its second cohort of twenty–one students from 13 countries. Official representatives of Myanmar, Cameroon, Ghana and the Philippines attended the graduation ceremony, which was led by the program’s director, Prof. Avi Sagi-Schwartz. Essabela Fewo from the Republic of Cameroon delivered an impassioned acceptance speech on behalf of her classmates: “Now that we are going back home, let the passion for helping children continue to be our driving force so that together we will be able to improve the lives of the children and their families... Long live the MA program in Child Development, long live the University of Haifa, and long live the State of Israel.”

Graduates Inspiring Social Change
University of Haifa alumnus, Dr. Germaw Mengistu, is a shining example of a graduate who has made a giant leap for his community. Dr. Mengistu is an Ethiopian-born Jew who immigrated to Israel in 1991. Two decades later he won a national short story competition that is having a lasting impact on the educational system in Israel. A recent decision by the Ministry of Education will make his tale entitled “A Dream at the Price of Honor” the first literary work on Ethiopian Jewry to be included in a new literature curriculum in Israeli public schools for the upcoming school year. Dr. Germaw Mengistu earned his PhD from the Department of Communication in 2016. During his studies, he was a recipient of a doctoral scholarship provided by the Polonsky Foundation in the UK. The University of Haifa faculty, student body and staff are very proud of his distinguished accomplishments.
Remembering Leon H. Charney

The Board of Governors paid tribute to the late Leon Charney, lifetime Honorary Chairman of the Board of Governors of the University of Haifa and generous and longstanding supporter. Leon Charney was an American philanthropist, lawyer, political advisor, and critical contributor to the Israel-Egypt peace treaty – and above all a staunch friend of the State of Israel.

His vision and support led to the establishment of the Leon H. Charney School of Marine Sciences, Israel’s only graduate school of marine sciences. “Leon had a huge impact on this University,” said Prof. Tauber, Chairman of the Board of Governors, “The School of Marine Sciences, which he made possible, will be seen as an inflection point in the history of the University of Haifa – and we speak of it already with great pride. Its future and potential is simply enormous and he saw with great insight and foresight what this potential may be.”

A tribute video highlighting his impressive activities was screened in the presence of Mrs. Tzili Charney, and a group of Mr. Charney’s friends and loved ones who flew in from the US especially for the occasion. Leon H. Charney passed away on March 21, 2016 at age 78.

Dedication Ceremony of the Herta and Paul Amir Social Sciences Complex

The Herta and Paul Amir Faculty of Social Sciences was dedicated in a special ceremony in the presence of Mr. and Mrs. Amir and their family. “They say that social sciences is the study of man and human society, so it is very fitting that we dedicate our faculty to two individuals who have dedicated themselves to helping their fellow man and society,” stated Dr. Shai Gabay of the Department of Psychology at the event.

The $10 million gift from Herta and Paul Amir will enable the extension of the Social Sciences Complex that will house new laboratories and graduate student workspaces, and provide a physical home to some of the Faculty’s cutting-edge departments. “The University is a conduit, and a magnet for talented people,” said Mrs. Amir. “By its mere presence in this city it empowers Haifa, the northern region and the security of Israel.”

Saluting 2016 Israel Prize Winner Prof. Emeritus Eviatar Nevo

The Board of Governors celebrated the remarkable research accomplishments of Prof. Emeritus Eviatar (Eibi) Nevo and his recent award of the prestigious Israel Prize in Life Sciences Research. Prof. Alfred Tauber, Chairman of the Board of Governors, related, “When I first met Eibi all I could think of is Ben Gurion reincarnated – a real force of nature. He is an extraordinarily productive and creative scientist, who has been acknowledged internationally for his vast contributions to evolutionary biology.”

The Prize Committee noted that Prof. Nevo is one of the fathers of modern evolutionary biology, broadening and widening our knowledge of biological species and their adaptation to changing environments. Prof. Nevo founded the University of Haifa’s Institute of Evolution in 1973 and served as its academic head until 2008. He continues to conduct his important research until today.
Meet the University of Haifa’s 2016 Honorary Doctorate Conferes

**Prof. Daniel Kahneman,** Israel/USA
2002 Economics Nobel Prize Laureate for his rare academic courage that allowed him to integrate insights from research in psychology into the field of economics.

**Mr. Doron Livnat,** Israel
for his exceptional assistance to disadvantaged groups in Israeli society and his support of study and research of the Holocaust at the University of Haifa.

**Prof. Bruce Bueno de Mesquita,** USA
for his excellence in the field of international relations and studies on conflict, war and peace.

**Mr. Lantos,** Canada
for his lifelong contribution to the Canadian film industry, for his unwavering support of the State of Israel, and for combating anti-Semitism and the BDS movement.

**Prof. Charles Milgrom,** Israel
for his role in promoting the development of novel drugs through groundbreaking theoretical and applied research at the University of Haifa, and his support of the “Ambassadors Online” program.

**H.E. President Ellen Johnson Sirleaf,** Republic of Liberia
2011 Nobel Peace Prize Laureate for her vision, courage and willingness to march, against every risk and every obstacle, along a path that has led her people to peace and prosperity and her struggle for equal rights for women.

**Prof. David Nirenberg,** USA
for his research and analysis of the complexity of relations between Christians, Muslims and Jews in the Middle Ages.

**Mrs. Herta Amir,** USA
for her contribution to higher education in Israel in particular, and her longstanding support of the University of Haifa.

**Prof. Shafi (Shafrira) Goldwasser,** Israel/USA
for her groundbreaking contribution to the development and promotion of encryption and data security.

**Mr. Lee Kohrman,** USA
for his efforts in fostering values of equality and for his contribution to the Ethiopian community in Israel.

**Dr. Gyongyver & Mr. Peter Kadas,** UK
for their contribution to the advancement of higher education and cancer research at the University of Haifa.

**Prof. David Nirenberg, USA**
for his research and analysis of the complexity of relations between Christians, Muslims and Jews in the Middle Ages.

**Mr. Lee Kohrman, USA**
for his efforts in fostering values of equality and for his contribution to the Ethiopian community in Israel.

**Mrs. Herta Amir, USA**
for her contribution to higher education in Israel in particular, and her longstanding support of the University of Haifa.

**Prof. Shafi (Shafrira) Goldwasser, Israel/USA**
for her groundbreaking contribution to the development and promotion of encryption and data security.

“I will carry a lasting memory of each of my fellow honorees, of their achievements and the immense contribution that they have made to a better understanding of the dynamics of a changing global environment. We commend the University of Haifa’s contribution to scientific research and academic excellence, and for the support you have given to many young professionals all over the world who have gone back to build not only their own economies but also to network in exchanges of progress. I am proud that I have been invited to join this sterling group of achievers.”

—**H.E. President Ellen Johnson Sirleaf,** from her speech on behalf of the honorary doctor recipients

**Prof. Bruce Bueno de Mesquita, USA**
for his excellence in the field of international relations and studies on conflict, war and peace.

**Mr. Lantos,** Canada
for his lifelong contribution to the Canadian film industry, for his unwavering support of the State of Israel, and for combating anti-Semitism and the BDS movement.

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2011 Nobel Peace Prize Laureate for her vision, courage and willingness to march, against every risk and every obstacle, along a path that has led her people to peace and prosperity and her struggle for equal rights for women.
Friends around the world
tapping new sources of charitable giving

Investing from the heart
The University’s Friends Associations have been instrumental in securing some $5 million for investments and research over the past four years through the Carmel–Haifa Economic Corporation Ltd., the technology transfer organization of the University of Haifa. Combining investment with philanthropy has become an increasingly popular philanthropic channel for donors around the globe to leverage their giving and achieve the greatest impact with their charitable resources. Carmel–Haifa, led by CEO Elka Nir, recently launched the “Carmel Fund,” which offers investors and donors an opportunity to participate in the incubation, nurturing and success of start-up high tech companies. The Fund aims to bring seed companies, especially in the life sciences, from the innovation stage to market.

Friends Associations from around the world are lending their support to this exciting venture by sponsoring promotional events featuring University scientists who have founded Haifa–Carmel companies. Events were held around the world in major international business centers, including London, Zurich, and Chicago. Last month, Prof. Fuad Fares, a cancer researcher who founded CanCure, now part of the Haifa–Carmel portfolio, presented his research on mushroom–based drug treatment for pancreatic cancer at events in Chicago and Zurich.

The generosity of our friends around the world has been a driving force in the tremendous development of the University. Thanks to the support of our worldwide network, the University today has grown to include more than 20,000 students and 1,200 research and teaching staff, seven faculties, eight schools, and 72 world-class research centers and institutes.

Capitalizing on golden opportunities
Friends Associations are also tapping the University’s “human” resources to creatively showcase research projects of potential interest to audiences around the world. Faculty members traveling to conferences or academic summits are being featured as guest speakers at lectures and parlor meetings. This strategy has proven very successful in generating interest in the University and in sparking strategic collaborations between other researchers or potential donors.

MARCH

São Paulo
A delegation from the Faculty of Education, headed by its Dean, Prof. Lily Orland-Barak, met with the President of “Hebraica,” the largest Jewish community center in South America, to explore new approaches for enhancing the city’s Jewish education system.

US Speaking Tour
Dr. Dan Schueftan, Director of the National Security Studies Center, met with friends and supporters in Philadelphia, Boston and New York to address topics ranging from US-Israeli relations to the Iran Agreement.

Tel Aviv
Over 150 Israeli officials and business leaders attended the Annual Gala of the Israeli Friends Association Business Leaders Forum, kindly hosted by the Portuguese Ambassador, H.E. Miguel de Almeida e Sousa. University of Haifa alumnus Lt. General (ret.) Benny Gantz, former Chief of Staff of the IDF, delivered the keynote speech.

Los Angeles
Prof. Sharon Poliakine of the Department of Fine Arts and Academic Head of the Hecht Museum, met with board members and longstanding friends of the University to discuss the role of the School of the Arts in Israel’s vibrant arts and culture scene.

London
Prof. Avi Sagi-Schwartz, Head of the International MA Program in Child Development, spoke at the Haifa for Children Dinner in London, celebrating the University of Haifa and Israel’s exceptional and life-changing work in global communities.

Palo Alto
Prof. Ofra Mayseless of the Department of Counseling and Human Development and former Dean of the Faculty of Education, spoke at an Israel Cultural Connection event about her recently published book The Caring Motivation: An Integrated Approach.
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FRIENDS ASSOCIATIONS
OF THE UNIVERSITY OF HAIFA
INTERNATIONAL
MASTER’S PROGRAMS
IN ENGLISH

ONE-YEAR MASTER’S
PROGRAMS

Archaeology
Exploring the prehistory and paleoenvironment of the Mount Carmel region (UNESCO World Heritage Site and a biosphere reserve)

Child Development
The nature of child development and how it applies to the lives of children and their families in developing countries

German and European Studies
Germany, Europe, and the European Union through an interdisciplinary Israeli perspective

Holocaust Studies
Israel’s first multi-disciplinary, English-language, graduate program in Holocaust Studies

International Relations and Diplomacy
Specialization in Diplomacy Studies

Israel Studies
In-depth study of the State of Israel covering the history of the Zionist movement to the present day

Jewish Studies (new program)
Weaving together Biblical and Talmudic Studies, Jewish history, philosophy and mysticism

Maritime Civilizations
Exploring coastal and underwater archaeology, marine biology and ecology, maritime history, marine geology, and geomorphology

MBA Specializing in Sustainability
A Global Green MBA program emphasizing environmental and social sustainability

MPH in Health Systems Policy and Administration
A Global Health Leadership and Administration program for a rapidly changing global health landscape

National Security Studies
Examining the complex interrelationship between the social, political, ethical, diplomatic, economic and military dimensions of national security

Peace & Conflict Management
Focusing in on the Middle East conflict with emphasis on conflict management tools and techniques

EXTENDED MASTER’S
PROGRAMS

Art Therapy
Interdisciplinary studies employing the principles and practices of the visual arts and psychology

International MBA
With strong regional emphasis on doing business in and with East Asian countries

International Relations, Dual Degree
In cooperation with the Institute of International Relations, University of Warsaw

MSc in Marine Geosciences
Covering exploration geophysics, seafloor mapping, remote sensing, geodynamics, tectonics, marine and coastal sedimentology, geochemistry, chemical and physical oceanography

Social Work
(new program opening in 2017-18)
Focusing in on social work practice in a multicultural society

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