

# NEWS FOR A BETTER WORLD

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GREETINGS FROM THE PRESIDENT



Looking back - and continued growth

The first semester of this academic year, 5786 (2026/2027), is behind us. It's time to pause for a moment to congratulate you, our students, on your progress to-date. The diligence, commitment, and investment in your studies that you have shown each day are the bases for your personal success and professionalism. As you go forward, we wish you fruitful and meaningful endeavors.

Throughout last semester, alongside your studies and research activities, there was a wide variety of social and community activities, in the spirit of the deep connection between the College and the community. This connection is not merely a slogan, but a real part of SCE's worldview - of Academia connected to/and active within its environment.

Recently, we were proud to hear about the significant grants awarded to our SCE researchers, attesting to our worthwhile investment in resources fostering research, development, and our productive academic faculty members. In parallel, we continue to allot significant resources for the development of advanced teaching methods, the upgrading of laboratories; the enrichment of the library collections; and support of our students in many diverse ways.

The successes of our SCE graduates, who have been hired by in-demand companies and are being well paid, strengthen our faith in our chosen academic path - we believe that high-quality education, personal mentoring, and striving for excellence, give a real advantage to our graduates in the labor market.

I wish to thank the entire SCE community - the students, the academic faculty, and the administrative staff - for their cooperation, dedication, and daily deeds. Together, we can continue to build a strong institution, one with values and relevance, that looks forward with responsibility and hope.

Sincerely,

**Prof. Semyon Levitsky**  
SCE President



# FROM VISION TO REALITY: WORK TOWARDS THE ESTABLISHMENT OF THE PERMANENT SCE CAMPUS IS UNDERWAY

**Prof. Jehuda Haddad:** "The new campus is a landmark in the College's history and will provide the coming generations with the tools and opportunities to lead and promote development." • "Excellent education in a modern facility will contribute to the transformation of Ashdod into a hub of excellence, enterprise, and innovation," said SCE's Managing Director, Zohar Wohlfarth Cohen

"The establishment of the new SCE Ashdod campus is a historic moment symbolizing the growth and expansion of SCE, not merely as a leading academic institution, but also signifying our deep interaction with the local community and the City of Ashdod," stated SCE Founder, Prof. Jehuda Haddad at the groundbreaking ceremony marking the start of the construction of the new Ashdod campus, held on October 26, 2025. "This new campus is a landmark in the College's history and will provide coming generations with the tools and opportunities to promote development, lead, and change the face of the city of Ashdod and its society."

Also participating in this ceremony were: SCE's Managing Director, Zohar Wohlfarth Cohen; representatives of the donors - the Ronson Foundation; the Chairman of the Minrav Group, Dr. Shai Weil; and Ashdod's Mayor, Dr. Yehiel Lasri.

This project was promoted by Prof. Jehuda Haddad and was planned by Architect David Knafo and his office, Knafo Klimor Architects. One of the big advantages of the new campus is its accessibility and nearness to Ashdod's "Ad Halom" Railway Station.

Zohar Wohlfarth Cohen: "After years of hard work and planning, I'm happy that the vision is becoming a reality. The fortunate students who will study on the new Campus will receive an

excellent education and will contribute to Ashdod's transformation into a hub of excellence, entrepreneurship and innovation. We're very proud to be part of the texture of urban renewal in Ashdod, and to inculcate the youth in the region with the tools for success and the leadership of significant social changes."

The "Minrav Group" was chosen to serve as the primary contractor for this construction project that includes a Center for Entrepreneurship and Innovation; a library; classrooms; laboratories; and academic departments, in two buildings covering an area of ca. 14,000 m<sup>2</sup> (= ca.16,744 yd<sup>2</sup>). This construction project is expected to take about 25 months.



"From the right: Zohar Wohlfarth Cohen, Managing Director; Prof. Jehuda Haddad, SCE Founder; and Ashdod's Mayor, Dr. Yehiel Lasri. Photo credit: Liron Moldovan Architects.

GREETINGS FROM THE FOUNDER



"Believe in our power to build the future!"

We're living in an age of accelerating technological changes. Artificial intelligence (AI), like many prior technologies, changes the way in which we learn, do research, work, and live.

In the face of such change, it is natural to feel uncertainty, but indeed, I believe that, here and now, there is a great hidden opportunity for us. We shouldn't fear change, but rather adopt it, understand it, and transform it into a tool that protects us.

Technology, including AI, can never replace people, rather it is a means for empowering human thinking: to make processes more efficient; to make results more precise; and to expand the boundaries of our knowledge. The role of Academia is to lead this coping process responsibly, reasonably, and with a vision of a better future.

I'm very proud of the SCE's teachers and researchers. Certainly, the many significant research grants they've been awarded attest to their academic quality and excellence, as well as to our worthwhile investment in resources fostering research and innovation.

Above all, I'm proud of our people! I wholeheartedly believe in our power to build the future - with determination, enterprise, daring, and creativity, and with a deep sense of responsibility, as well as setting a personal example. Each student, every lecturer, and all the researchers are part of this wonderful generation that is building a better future here.

I'm looking forward with optimism, with a great deal of faith in our abilities to learn, to change, and to grow together.

With warm greetings,

**Professor Jehuda Haddad**  
SCE Founder

# THE DEVELOPMENT OF THE CYBER FIELD WILL EXCITE YOUTH IN THE NEGEV

"Cyber in the World of AI," SCE's large cyber conference, was held on the Be'er-Sheva campus at the end of November 2025, in cooperation with the Israel National Cyber Directorate (INCD) and the Cyber Laboratory for Smart Transportation, the Israel Ministry of Transportation, and "Ayalon Highways."

This conference had professional lectures on cyber-related topics, an exhibit by startup companies, a panel of cyber experts, discussions on the development of cybersecurity against future cyber threats, and an SCE student Hackathon (with prizes for the winners) on "Smart Transportation in a Smart City."

The panel of cyber experts discussed: "Cyber challenges in the age of AI," emceed by Silvie Levi, Deputy General Manager of the Cyber Division of Israel Aerospace Industries (IAI). Panel members: Guy Toibin, Managing Director at "Deloitte," Oron Golan from "Microsoft"; and Amir Lukach, Head of the Software Development Team at "Morphisec."

Another panel discussed: "Risk capital and cyber society," emceed by Ido Ganor, General Manager of "IPV Security" company and founder of the "CISOteria" startup. Panel members: Gilad Zinger from "YYM Ventures;" Uria



Photo caption, from right to left: Dadi Gertler; Prof. Jehuda Haddad; Zohar Wohlfarth-Cohen; and Shlomi Numa.

Lin from "Elron Ventures;" and Daniel Ziv from "Gllot Capital Partners."

## Higher education is the key to change

Prof. Jehuda Haddad, Founder of SCE, opened the conference with the following words: "Over the past few years, the field of Cyber has become the main engine promoting the economic growth of Israel - a lucrative source of advanced, high-quality, high-tech employment, initiatives, and economic development... This conference makes a statement: higher education is the key to change; it enables young people to build their personal, social and professional futures right here in Be'er-Sheva. We have set ourselves a

clear goal - to keep these abilities and these young people here, in the Negev. In this age in which people speak the language of artificial intelligence, it is obvious that Cyber is not just another field, but rather it is one that impacts all facets of our life. It is our responsibility to continue to lead high-quality preparation, alongside social discourse regarding equal opportunity - because the future of Cyber is also that of our society."

Be'er-Sheva's Deputy-Mayor, Shlomi Numa, said: "In order to transform Be'er-Sheva into a strong city and connect the Central Region to the South, we must have high-quality transportation - a train that reaches

## CYBER IN THE WORLD OF AI

At SCE's large cyber conference, senior officers and experts discussed the challenging field of "Cyber in the age of AI." • A 28-hour Hackathon on "Smart Transportation in a Smart City" was also held dealing with the search for novel solutions to resolve issues of cybersecurity.



Tel Aviv in 35 minutes and brings us closer to the center and the North."

Dadi Gertler, Executive Director of the Innovation & Technology Partnerships of the INCD, stated: "In general, the cyber challenges of smart cities, especially like those with rapidly developing smart transportation, as in the Be'er-Sheva metropolis, must integrate cyber innovations and enterprises from the

earliest planning stage, as part of the city's renewal process."

## Formulating action plans in the face of threats

Prof. Gabi Siboni, an expert on cyber security strategies, spoke about the need to formulate a national strategy, an action plan for the Cyber domain.

In his words: "Threats against us are constantly increasing from both the criminal and political arenas; they come from organizations supported by states or persons having independent means. Within the criminal realm, there is a vast amount of cyber activity and lots of money. When there's a huge amount of money - there are tenfold as

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many players and cyber threats. Faced with such threats, we must crystalize our action plan."

Sagi Bar, the General Manager of the Center for Cyber Education, spoke on the importance of educating about Cyber in the age of AI: "The goal of the Center for Cyber Education is to promote social leadership in underprivileged youth, to strengthen Israeli society. One third of those taking I.D.F. Cyber programs come from our programs. Eighty-four percent of our graduates are currently employed in high-tech. The use of AI creates opportunities, though also risks. It may be possible to destroy all of Humanity if everything is managed on the basis of keyboarding and pressing a button."

Ido Ganor, General Manager of "IPV Security" and founder of "CISOteria" said: "There will always be Cyberattacks, but we can reduce the threat level to a viable one."

### 28 hours of Cyber

During a 28-hour-long Hackathon on "Smart Transportation in a Smart City," ca. 160 SCE students, representing the departments of Computer Sciences, Software Engineering, and Electrical Engineering and Electronics from both campuses, participated in 12 competing teams. Each team was

tasked to find a novel and effective cybersecurity solution for one of three potential issues likely to occur in smart transportation in a smart city.

These three challenges suggested by Hemi Pecker, Director of Israel's National Center for Handling Cyber Threats in Smart Transportation and - "Cybersecurity for Intelligent Transportation Systems" ("CylITS," located in Be'er-Sheva), were: 1) identifying a cyberattack on a vehicle; 2) identifying and preventing a cyberattack at a smart intersection; or 3) securing public electrical charging stations.

In first place, with a 5,000 NIS prize, was the "Autonomous Defense Team," with the students: Eden Cohen, Diana Yakimov, Hadija Alasibi, Lucas Kressberg, Israel Yakubov, Ziv Attia, Tomer Zarhin, David Martinenko, Adva Dahan, Einav Dei, Rotem Golan, and Oz Ansbacher, for solving the challenge of identifying and preventing a cyberattack at a smart intersection. Their solution was to build a model to deal with such incidents by delineating the collection of the logs from all the intersection's components, monitoring the data, and constructing emergency software in case of an immediate incident.



Photo caption: First place winners of the Hackathon: Team "Autonomous Defense". Photo credit: Liron Moldovan.

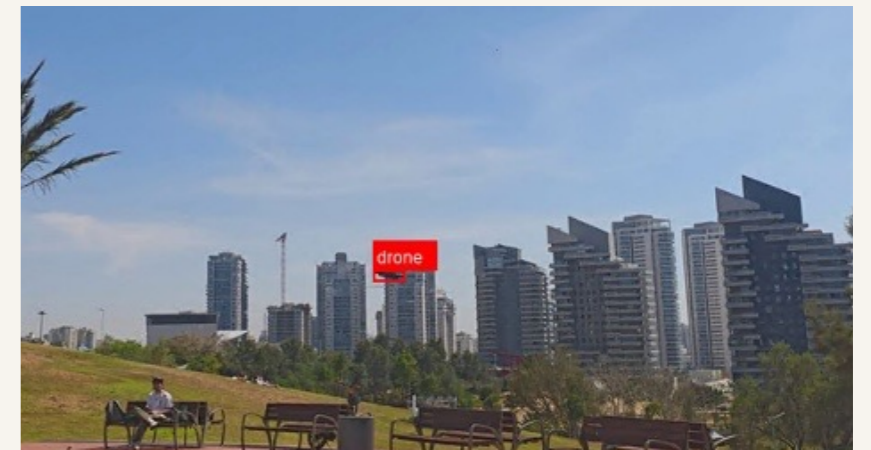
# STUDENTS RESPOND TO THE DRONE CHALLENGE

The growing use of drones presents significant challenges regarding their identification and examination - distinguishing between drones and natural objects (like birds). • SCE students in the Software Engineering Department suggest an advanced method that combines visual identification with movement prediction analysis over time.

The growing use of drones in civilian and defensive airspaces presents significant challenges regarding the precise identification of each unmanned drone and its distinction from natural objects, such as birds. This challenge is further sharpened by complex photographic conditions, like changing illumination, great distance, and limited resolution - that cause the existing systems to sound many false alerts.

A final project of SCE students in the Software Engineering Department suggests an advanced method to resolve these problems, based on the analysis of a spatial-temporal video. Unlike the traditional image-processing systems that depend on a single frame, this new method combines visual identification with an analysis of movement sequences over time. In this way, it is possible to discern certain dynamic characteristics, like: speed; course stability; directional changes; and cyclic vibrations - characteristics that can distinguish between drone and birds.

By tracking an object through a series of frames, a unique 'movement signature' is determined for each type of object. The combination of image and movement analyses notably improves precise classification, reduces erroneous identifications,



and contributes to the development of advanced systems for real-time monitoring and safety.

This project was developed by four SCE students in the Software Engineering Department: Tair Sara Tobul, Max Israel Korotinsky, Ehud Vaknin, and Moshe Berkovitz,

mentored by Dr. Irina Rabaev, with the cooperation of the "Guardian Angel AI" company. This project was done within the framework of the SCE final project, reflecting the integration of advanced academic knowledge on coping with technological challenges from the field of security for civilian application.

# INNOVATION EMPOWERS PEOPLE



“SighTrain” is an interactive system for the rehabilitation of sight, developed by SCE students in conjunction with the international Tikun ‘Olam Makers (TOM) movement and the Soroka/ University Medical Center, that demonstrates social innovation par excellence.



SCE students from the Software Department, cooperating with the TOM movement and the Soroka/ University Medical Center, renovated the old eyesight rehabilitation program at the hospital, giving it a novel software program. By means of a combination of advanced technologies and meticulous programming, they succeeded in transforming the existing system into an innovative, interactive platform that provides the patients with an accessible rehabilitation experience, interactive, and tailored to suit each individual.

This system, “SighTrain,” was born of prolonged cooperative action

with professionals in the Soroka Rehab. Dept. and has made those rehabilitation exercises accessible, following their transfer into a digital environment - also enabling continuous, concurrent tracking and monitoring. Today, it is being used by a variety of clinics and rehabilitation institutes across the country. This updated and enhanced system assists in the data analysis and examines patients’ progress over time.

This development was led by the SCE students, Or’el Chen and Victor Sokolovsky, from the Software

Department, within the context of their Final Project, under the mentorship of Dr. Hadas Chassidim. For over a year, they worked in conjunction with the Soroka caregivers’ team, writing meticulous programming, checking and rechecking, fitting it to the clinical needs and actual treatments. Even during challenging periods, requiring the tight scheduling of their studies, their work, and their I.D.F. Reserves service - they continued to develop and improve their system, until it was transformed into a stable platform, accessible and user-friendly.

The “SighTrain” system combines a

series of interactive games, based on known rehabilitation principles, meant to exercise abilities, like attention, memory, visual discernment, and eye movement. Among these exercises, one might find: “Catch 5,” a game that improves reaction time and concentration; “Color differentiation,” exercising the distinction between similar colors; “Memory game,” to strengthen short-term memory; “Sacada clock,” to improve visual scanning patterns.

Each one of these exercises is programmed such that it enables each patient to adjust the level of difficulty in accordance with his/ her personal needs. The results of each session are automatically documented and presented as clear graphs, allowing the caregiving staff to easily track each patient’s progress, to assess the changes over time, and to build a personally-suited exercise program.

### An accessible and suitable rehabilitation process

According to Occupational Therapist, Orna Kohav, at the Soroka Rehab.

Dept., “SighTrain” improves the management, tailoring, and accessibility of the rehabilitation process, both at the clinic and in the patients’ homes. Kohav emphasized: “It’s an intuitive and pleasant system to use, that increases the patients’ engagement and their sense of capability.”

Dr. Hadas Chassidim, in SCE’s Software Department, stressed the extensive value of this initiative: “This project exemplifies how engineering knowledge can transform into practical solutions that impact peoples’ lives. This is a wonderful bond between technology, science, and human sensitivity”.

Shaked Lev, head of the field of health in “TOM Israel” and a professional occupational therapist with a background in medical innovation, says: “One of the main challenges in rehabilitation is maintaining continuity between the clinic and the home. ‘SighTrain’ provides a practical solution for bridging that gap by enabling the caregivers to monitor their patients’ progress in their homes, and grants patients the

experience of accessible, enjoyable, personally-tailored exercises. This development demonstrates how much innovation can empower people and strengthen their sense of independence and self-respect.” In the wake of this initial, successful assimilation, an additional stage of platform development is being planned. The SCE students and the staff professionals are currently working on: the addition of more games; the development of a cellular application; the integration of eye-tracking technology for the identification of eye movements in real-time; the assimilation of AI algorithms to dynamically adjust the training levels for each user.

Their vision is to expand the use of “SighTrain” to all the Israeli hospitals and rehab. centers, making it a beneficial national platform for all the professional teams and caregivers overseeing advanced rehab. processes by means of interactive and guided data that can restore patients’ ability to see and function better in their daily lives.

# AN OPPORTUNITY TO EXPERIENCE A SOCIO-PROFESSIONAL PROCESS IN THE REAL WORLD

Students in SCE's Computer Science Department developed technological projects providing suitable solutions for the real needs of the Chaim Herzog Museum of the Jewish Soldier in WWII \* This was an opportunity to experience a completely professional process, as their technology was integrated into the realms of culture, history, and commemoration.

The field of Computer Science continues to establish its status as the main field in Academia, not just thanks to its high demand in the labor market.

At SCE, this field of study includes the inculcation of theoretical knowledge, the development of applicable skills, and the significant connection between actions and their social values. The students are required to cope with complex challenges that include programming, algorithmics, teamwork, and systemic thinking - while emphasizing applicable projects that simulate real work environments.

Cooperation with the Chaim Herzog Museum of the Jewish Soldier in WWII is one of the blatant expressions of the connection between Academia and society. Within the context of this cooperation, our students developed technological projects providing suitable solutions for the Museum's needs: digital solutions; targeted systems; and technological tools for



the improvement of processes, better data accessibility, and the enrichment of the visitors' experiences.

This work incorporated all the stages of development: characterization of the needs; planning the best solutions; writing the codes; testing; and presentation of the end products. It was our students' first opportunity to experience a full professional process first-hand, and to really see how their technological innovations were integrated into the realms of

culture, history, and commemoration. Besides gaining important technological tools, these projects stressed the values of responsibility, commitment, and the connection between the past and the present. SCE considers academic studies to be where knowledge, values, and involvement become intertwined, when the studies are formative experiences that prepare the students for the future, both on and off the campus.



## LEARNING FROM THE ITALIANS

SCE Master's students in Green Engineering participated in a workshop on the management and treatment of municipal wastes held in Italy.

SCE Master's students of 'Green Engineering' in the course: "Management and the Handling of Municipal Wastes" went to Italy, accompanied by their lecturer, Prof. Adi Wolfson, Head of the Green Engineering Study Track.

There, they met with Prof. Francesco Di Maria of the University of Perugia, an expert on the topic of "The Treatment of Wastes in the European Community." In his workshop, they learned about the actions taken over the previous

decades by the European Union, and especially by Italy, for the promotion of enlightened and self-sustaining management of household wastes. These actions include: the separation of waste-matter into dry and wet streams; anaerobic digestion (AD) of rotting wastes to produce biogas and energy; the creation of fertilizer by composting; and the reclamation of energy from unrecyclable wastes as 'circular economy'.

Later, they also visited advanced

facilities for waste treatment in Italy, learning about various waste treatment technologies, means for environmental protection and the reduction of polluting emissions, and about relevant legislation, monitoring, and enforcement.

Prof. Wolfson explained that recently a large government tender had ended for the establishment of the first Israeli facility for the reclamation of energy from metropolitan Be'er-Sheva's municipal wastes, to be built in Neot Hovav.



אפיון הצורך



תכנון הפתרון



כתיבת קוד



בדיקות והצגת תוצר סופי

# “QUALITY IS NOT MERELY A PROFESSIONAL METHODOLOGY - IT’S CULTURE”

This year, hundreds of people marked a decade of “Annual Quality-South Conferences” • Prof. Dorit Tavor, the Conference Chair, said: “This is the tenth annual meeting - serving as a professional home for those from the southern region and all of Israel who are promoting quality.”

Once again, SCE, together with the Israeli Society for Quality (ISQ) and the Southern Branch of the Manufacturers’ Association of Israel (MAI), hosted the “10th Annual Quality-South Conference,” with the participation of hundreds of professionals from various industries: high-tech, defense, pharma, food, construction, and infrastructures, alongside representatives from Academia and students.

In recent years, this conference has become the main annual event of the southern ‘quality’ community; this year’s topic was: “data-based quality” - an advanced approach for the management and improvement of quality, supported by the collection, analysis, and application of data for educated decision-making processes.

This event was opened by Prof. Dorit Tavor, the Conference Chair, who said: “For me, this is very exciting and special - our tenth annual meeting - serving as a professional home for those from the southern region and all of Israel who are promoting quality... In an age in which data is the primary source of knowledge, we learn how to transform data into tools that enable us to make the right decisions, to bring about ongoing improvement, and real innovation. Quality is not merely a professional methodology - it is culture; as such, it is our responsibility to lead to better organizations and a better society.”

Mr. Sharon Anker, Chair of the ISQ: “We are glad to be partners in this “Quality-South Conference” that has become an important tradition in

the Negev. Since its establishment, this conference series has hosted hundreds of leading lecturers in the fields of quality and innovation - attesting to our commitment to provide the participating audience with rich and varied professional contents.”

Dana Sade Ophir, Director of the Southern Branch of the Manufacturers’ Association of Israel: “I’m excited to mark the ‘10th Annual Quality-South Conference’; ten years of persistence, creativity, and leadership in the field of quality and excellence. This is a journey of professional and societal growth - that integrates industry, organizations, Academia, and professionals into one strong community. It gives us the opportunity to stop for a moment, observe the path we’ve taken, and to ask ourselves where we’d like to take the field of quality during the coming decade.”

## THE “NEGEV DECORATION FOR EXCELLENCE IN QUALITY”

The conference included lectures on a variety of fields, ranging from smart industry and data-based innovation, through pharma, food, and medicine, to aeronautics, outer space, and construction. The lecturers presented tools and practical solutions, disseminated insights, success stories, and challenges encountered in the field. Among these lecturers were representatives from Rafael, the Standards’ Institution of Israel (SII), the Chevron Company, Elta, the Shimon Peres Negev Nuclear Research Center (NNRC); and others.

The 2025 “Negev Decoration for



Photo caption: “Quality-South Conference” participants. Photo credit: SCE, PR Dept.

Excellence in Quality” was awarded to Mr. Moshe Kleinman, Chairman of the Israeli Association for Improvement and Six Sigma Teams. Over decades, Kleinman was outstanding for his significant contributions to the promotion of quality and process improvement in Israeli Industry and society. He held many senior positions in the Dead Sea Works, such as: Manager of the Production Division; Deputy-Manager for Quality; Deputy-Manager for Ecology, Safety and Quality; and Deputy-Manager for Human Resources. He also stood out for his public actions: as a member of the “Israel Forum for the Management of Knowledge,” a member of various professional committees at SII; and as someone who was proactive for the reception and integration of people with special needs, within the purview of “Agudat Ami” (for the mentally disabled) and “Shilat” (national military service for young Orthodox Jewish women).

The 2025 “Quality-South Conference” perpetuates traditions promoting excellence, innovation, and the southern community - establishing its position as one of the most important ‘quality’ events in Israel.

## ENGINEERING WITH A ❤️ Students of product design are developing independence for disabled people



Within the framework of the course: “Product design 1,” third-year (junior) SCE students in the “Product planning and design” track of the Department of Mechanical Engineering joined a one-year cooperative enterprise with the Fighters’ House in Be’er-Sheva. Each student team was accompanied by a disabled person, whose needs, lifestyle, and preferences were scrupulously studied. Then, each team developed and engineered individually-tailored solutions granting that person independence, security, and an actual improvement in daily life.

Among the projects developed: a system for cutting toilet paper using only one hand; a device enabling the shampooing of long hair; a device for cutting with a knife using the disabled hand; a system for lifting pots with one hand; and a novel mechanical glove

that mimics ligament movement, enabling prolonged grasping without cognitive effort.

One of the outstanding examples was created in cooperation with Kobi Segal - to cope with nerve damage in his right hand. SCE students, Yuval Ben-Hamo and David Barshishat, developed a glove for him that can mechanically lock his fingers, while Itai Hakham and Gal Arush created a device that can hold a knife, enabling Kobi to cook and eat by himself.

Another student team, Guy Pariente and Noa Ziv, worked with Amit. Amit is a Police Officer who was injured during the October 7 massacre. This team developed a very specific device for her, so she would be able to spray a bit of perfume on herself, by herself - a small, but meaningful solution for day-to-day independence. In addition, David Zuzut, Ron Suissa,

and Harel Ben Shoshan created a system making the shampooing of her long hair possible for her.

Even Ornit, who loves to cook, but lost a hand, was granted a suitable solution. For her, Neria Glick and Shmuel Lasry developed a system for lifting pots with only one hand, enabling her to practice her beloved cooking hobby comfortably and safely.

This course (“Product design 1”), given by SCE lecturer Naama Agassi and mentored by designer Ilan Elkarat, illustrates how engineering knowledge and design can become sensitive, empathetic tools that make a notable contribution to society. These students did not merely create products - they helped to restore a sense of independence and control over their lives to disabled people.

# SCE AT THE FOREFRONT OF SCIENTIFIC RESEARCH



SCE researchers have recently been awarded fine research grants, proving, once again, that investing in research and striving for excellence bear fruit.

## SCE researchers recently awarded fine research grants:



**Dr. Ziv Brand**, in the Department of Mechanical Engineering on the Be'er-Sheva campus, was awarded a research grant in the amount of 950,000 NIS, for his work on "a smart, active adaptor for reducing erosion processes," sponsored by the Israel Innovation Authority. In the words of Dr. Brand: "This system is based on a unique, active actuator and includes real-time sensing and control of the suppression of vibrations by means of robust, adaptive and intelligent algorithms. The solution is expected to enhance processing stability, increase output, and improve surface quality - thus reducing wear, especially under conditions of a high length/diameter ratio - while diminishing dependence on the operator's skill."



**Dr. Tal Yadlin**, in the Department of Civil Engineering, also on the Be'er-Sheva campus, was awarded a research grant totaling 500,000 NIS for a three-year period in response to the call for proposals on the topic of "smart transportation and transportation infrastructures." Her research deals with: "The development of smart and innovative tools for the monitoring and evaluation of the status of concrete transportation bridges and infrastructures." Her work combines the advanced analysis of acoustic emissions with data-based methods, enabling the early identification of flaws and hidden damaging processes in structures. The results of her research are expected to significantly contribute to the safety of infrastructures and the efficiency of the maintenance processes, and will bolster decision making during the service lifetime of transportation structures.



**Dr. Aviad Elyashar**, in the Department of Computer Sciences on the Be'er-Sheva campus, received 300,000 NIS for a two-year period, equally divided between him and his two researcher partners from the Ben-Gurion University of the Negev - Prof. Rami Puzis, from the Faculty of Computer and Information Sciences, and Dr. Odeya Cohen, Head of the Nursing Department. This trio's research topic is: "A system based on a model language developed for the automatic production of state-of-affairs reports in response to earthquakes striking control and monitoring centers of health organizations." Dr. Elyashar noted that: "Under emergency conditions, as during earthquakes, data overloads and partial data streams occur, making it more difficult for medical system situation rooms to produce precise and updated situation reports, which are vital for life-saving decision making. The suggested research develops and examines an AI-based system supported by advanced,

'large linguistic models' (LLMs), for the creation of real-time situation reports for medical monitoring and control centers. By comparing the functioning of regular human teams versus those assisted by the AI-LLM system in simulations of realistic emergencies - the potential contribution of the AI for improving decision-making speed, assessing the situation, and allocating appropriate resources (for example, during large-scale earthquakes) will be measured."



**Prof. Oshrat Levy-Ontman**, in the Department of Chemical Engineering, in conjunction with Prof. Nina Kamennaya, from the Ben-Gurion University of the Negev, were awarded a research grant of 150,000 NIS, funded by the Jewish National Fund. The topic of their research is: "The use of commercial alginate and a novel biomass, rich in polysaccharides, for the preservation of minerals in soil and the reduction of soil erosion in forests after forest fires."

## Three more research grants were awarded to SCE researchers by the Office for Regional Cooperation:



**Prof. Victor Kagalovsky**, Dean of the Engineering Faculty in Be'er-Sheva and member of the Department of Electrical Engineering and Electronics along with **Prof. Dmitry Baimel**, Head of the department, were awarded a grant totaling 162,000 NIS, for "The development of an AI-based control method for electronic fault current limiters."



**Prof. Shlomo Greenberg**, Head of the Department of Computer Sciences, received a grant of 165,000 NIS for: "The identification and tracking of hovercraft and unmanned drones by means of event cameras and 'spiking neural networks' (SNN)."



**Dr. Elroi Hadad**, in the Department of Industrial Engineering and Management on the Be'er-Sheva campus, was granted 148,300 NIS for his research on: "The impact of economic uncertainty, geopolitical risks, and investors' sentiments on the real estate market in the Middle East." We're proud of the academic successes of our faculty members and we're certain that they'll continue to lead at the forefront of scientific research.



## Academic Faculty | Dr. Adi Katz, Head of the Department of Industrial Engineering and Management on the Ashdod campus



Dr. Adi Katz has been the Head of the Department of Industrial Engineering and Management on the Ashdod campus for the past eight years or so and has worked at SCE for over 20 years. Today, she holds a plethora of additional positions, among which are - serving as the Director of the YOUSability Laboratory (SCE's serviceability center), dedicated to the development and testing of human-computer interactivity; Chairwoman

of the Committee for Institutional Ethics Regarding Human Testing; Overseer, in charge of the issue of the prevention of sexual harassment; lecturer on Information Systems, who also teaches in the Department of Visual Communication; and Senior Research Fellow at the Institute for User-Empowered Design (UED).

She dedicates her research to the subject of man-machine interfaces and thinks that the connection between technology and ethics is very important. She is particularly fascinated by research on various human aspects (behavioral, emotional, cognitive) in relation to digital technologies. The rapid changes in the field of Technology, especially the entry of artificial intelligence (AI) into all the parts of our lives, have created many more interesting directions for her research, which has become quite diversified: usability; aesthetics of computerized systems; designing user experience (UX); modelling basic data; and empowering users

## Administrative staff | Din Daniel Shmuel, Head College Security Officer



The man in charge of SCE's Security Unit, Din Daniel Shmuel, considers his job to be his personal mission, one combining responsibility and professionalism, daily deeds and good interpersonal skills. Din is a resident of Be'er-Sheva, engaged to

Bar, and expects to marry her within the coming year.

He started on his professional path during his military service as a fighter and commander in a Golani Unit. During the course of his service, he was wounded and was recognized as an I.D.F. disabled veteran. He recalled: "It was a very significant incident, one that fashioned my perception of the world and led me to continue developing in the areas of security and also civics... After my release from the I.D.F., I joined the 'security' world by working various jobs, including the management of complex systems, or working with different public and private bodies. Later, I served as the Deputy-Director of a security firm."

His initial involvement with SCE began

by technological means.

In recent years, she has been researching: the impact of humor in computer-mediated communication; UX microcopy; persuasive design; and a variety of AI-related subjects, such as the potential use of AI for - job interviewing and/or negotiating; choosing fitting humor for users receiving messages; determining the impact robotic design on human compassion and care behaviors; etc.

In addition, Dr. Katz also mentors Ph.D. students, supervises many doctoral theses, and is a member of the committees involved in planning Israeli and international conferences in her field.

In regard to her personal life, Adi lives in Gan-Yavne and enjoys spending time with her family - her husband Eran, an Industrial and Management Engineer, and her three sons: Nadav, Udi, and Tamir. In her spare time, she paints and enjoys art, reads books, and watches suspense movies.

well before his present job here, when, for about four years, he worked with a company that provided security services to the College. "During that period, I was closely exposed to the nature of SCE, the people working there, and to the values it represents. Once the opportunity arose to join them as an insider, I was glad to apply and to become an integral part of the collegiate action."

The job of campus security is much more than just means of protection. "It's a service based on availability, an open-door policy, good interpersonal skills, and preventive measures. "The goal is to enable a safe routine, calm and supportive, so all the students, staff, and faculty members can concentrate on learning, teaching, research, and personal development."

## "SCE'S COMMITMENT TO THE TRAINING OF TRULY VALUABLE ENGINEERS FOR THE LABOR MARKET IS ALWAYS OBVIOUS."

Zvi Sharon, a graduate of SCE's Department of Electrical Engineering and Electronics, talks about his professional career and recommends that students and fresh graduates "keep their feet on the ground," invest in their studies and take every subject seriously.



Zvi Sharon, born in Be'er-Sheva and a graduate of SCE's Department of Electrical Engineering and Electronics, is currently a Technical Program Manager at "CyberArk" company. In the past, he had served as the Director of "Weka I.O." (a digital file storage platform), located in the Gav-Yam Negev High-Tech Park.

Zvi began his career path during his high-school studies at the Air Force Technical College in Be'er-Sheva, studying to become an Electronics' Technician. Initially, he served in the I.D.F. as a Networks Engineer and, during his regular military service, he began to study Electrical Engineering and Electronics at SCE. "I advanced until I became the Head of the Projects Team and remained in I.D.F. as a paid professional for five more years," Zvi said.

With the completion of his B.Sc. studies, he debated whether to further extend his I.D.F. service or to leave - a decision for which he is grateful. "I decided to transfer to the Industrial Park in 'Omer, to work on the examination and integration of systems. However, I soon found myself on trains to Tel Aviv - something I didn't like. When "ECI Telecom" decided to open a site in 'Omer, dealing with integration and customer support, I opened a team in 'Omer. Over time, my site grew to ca.200 people. Afterwards, I was offered a chance to join "Dell EMC." There, I worked as a Product Manager, learning and developing a

lot. After five years, I transferred to "Wix," where I managed the testing and production of online booking. Two-and-a-half years later, I joined "Weka I.O.," following a friend's lead. At that time, this company didn't yet have a branch in Be'er-Sheva, and I strove to establish an office in Be'er-Sheva, where we began to hire employees from the southern region."

**Why did you insist on staying in the South?**

"I feel at home, here. The people are warmer; everything's more personal. I know a great many people in the Gav-Yam Negev Park community. It's a lovely, friendly ecosystem. The educational system in the South also has many advantages. I'm a member of the Municipal Parents' Leadership Committee, working with the Head of the Municipal Education Department to encourage initiatives and excellence, and to break the glass ceiling."

**What did our SCE studies give us?**

"The ability to cope with complex problems and to find their solutions by means of organized, systemic thought. I recommend that students concentrate during the lectures, do practical exercises consistently, and try to connect the subject-matter under study with the actual workaday world."

**Do SCE graduates have an advantage in the labor market?**

"From my experience in the world of high-tech, today's market is especially

challenging for juniors arriving from Academia. The best way to integrate is to create projects with real users that enable the students to experience real work processes, thus providing them with significant talking points for their job interviews. At SCE, throughout the studies, the lecturers' and teaching assistants' commitment to the training of truly valuable engineers for the labor market was blatant. I think that an SCE graduate brings with him high abilities and significant academic knowledge that are the basic tools of the engineer."

**TO SHOW UP AT WORK OR COME TO DO THE WORK**

How did you reach your present job? I worked in various companies, and in each place, I learned new subject-matter, and accepted more responsibility, going beyond the scope of my designated role. This approach opened many doors for me and led to my professional advancement."

**What are the characteristics with which graduates must be equipped to succeed in Industry?**

"There's a technological aspect and a personal one: prepare for job interviews by reading designated books and creating personal projects; be personally invested; study intensely; ask questions; form a deep understanding of the solutions; keep your feet on the ground; and take each subject seriously. This is what makes the difference between showing up at work and coming to do the work."

**What do you especially like about your work?**

"Working with people, seeing products succeed, promoting professional excellence, grooming next-generation engineers, and expanding high-tech job opportunities here in Be'er-Sheva."

# “BE A BIT LIKE ITAI”

An academic workshop given by “NVIDIA” was dedicated to the memory of a deceased department graduate, Itai Berdichevsky



SCE’s Department of Electrical Engineering and Electronics held an academic workshop, given by INVIDIA on the Be’er-Sheva campus, for fourth-year (senior) students studying in the course: “Deep learning.”

This workshop was dedicated to the memory of a deceased department graduate, Itai Berdichevsky, who was murdered along with his wife, Hadar, during the terrorist attack of 7 October 2023 at Kibbutz Kfar ‘Aza. Their twin sons, Guy and Ro’i, survived by staying in a safe room for many hours, until they were rescued by I.D.F. soldiers.

Attending this workshop were: Itai’s mother, Ravit Berdichevsky; Head of the Academic Administration, Dr. Avshalom Danoch; Dean of the Engineering Faculty on the Be’er-Sheva campus, Prof. Victor Kagalovsky; Head of the Department of Electrical Engineering and Electronics, Prof. Dmitry Baimel; the course lecturer, Dr. Dima Bykhovsky, students, department graduates, and Itai’s close friends, Dor Krief and Uriel Mizrahi.

Dor Krief recounted that Itai was “the consummate engineer: a professional, indefatigably curious, meticulous, ambitious, and a man unafraid of difficulties and challenges.” Then added: “But above all, he was a good person, always helping,

unconditionally, and sporting his perpetual smile. He was an excellent student and project manager, who received an “IMPACT” grant. He was a husband and father of twins. He worked for the Israel Electric Corporation and was also Major in the I.D.F. Reserves. All these many jobs never obstructed him, rather they empowered him and fashioned his good character.” Dor told us: “I chose to name my newborn son Itai, and I hope he becomes a bit like him. I even recommend to everyone: ‘Be a bit like Itai.’”

Dr. Avshalom Danoch stated: “Holding this workshop in Itai’s memory expresses our deep commitment to the commemoration of his values and to the man himself, by means of academic excellence. Itai and Hadar were brutally murdered and their loss is still an open wound in the heart of Israeli society. Israeli Academia is not detached from reality; its job is to stop, to remember, and to create a space for meaning, thought, and responsibility. This workshop provides

a moment connecting knowledge, humaneness, and reciprocity. As we see it, this is our valuable, educational mission.”

Prof. Dmitry Baimel: “This workshop is an emotional and painful moment for us all. Itai was a person and a student who inspired us all. We were lucky to have heard how special he was from his mother: a fighter, a patriot, an exemplary family man, a leading figure, and leader to his friends. His memory will remain etched in the heart of the department’s community.”

Ravit Berdichevsky, Itai’s mother, was greatly moved by the event and stunned at how connected the students felt to Itai’s persona. In her words: “Thank you for helping me hug the pain.” We thanked her for the emotional and significant discussion she had with the students.

The Berdichevsky family was given a gift, a memento - a 3D-printed laser-etched likeness of Itai on wood, as a personal gesture from the Department of Mechanical Engineering.



As in previous years, SCE is participating in “purple illumination” events marking the call for equal rights on the “International Day for Persons with Disabilities.” \* This year, our focus is on saluting our physically- and mentally-disabled war veterans.

In Israel this year, the “Purple Illumination Project” is being led by *Mif'al ha-Payis* (“Lotto”, the Israeli National Lottery) together with the local and regional Federation of Local Authorities and the “*Shavvim*” (Equal) website (a news portal for disabled people and their families), marking the call for equal rights on the “International Day for Persons with Disabilities” and saluting our physically- and mentally-disabled war veterans, engaged in their difficult, personal missions of rehabilitation.

Within the framework of this project, on the night of December 3, 2025, the buildings on the SCE campus were illuminated by purple spotlights, along with about 200 other buildings across Israel.

SCE joined this project to demonstrate that institutions of higher education also play a significant social role and, by being notably present in public spaces, they can raise public awareness, making social issues more accessible and open to discussion.

The power of this enterprise lies in the connection between the students and the current social reality. It creates a sensation of belongingness and involvement, while reminding us that social change can begin even in small ways - by means of a gesture, a conversation, or a small initiative that succeeds in enlightening others.

Participation in the “Purple Illumination Project” illustrates how the College can serve as a hothouse for valuable initiatives, reminding us that Academia



and society are not separate worlds, rather a shared domain, in which knowledge, values, and responsibility meet - and we shine a different light together.

# SCE

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