Our graduates, comprise 15% of all engineers employed in the high-tech industry, have coveted positions in leading companies and are a testament to the College’s contribution to the economic growth and increased security of the State of Israel.

(Prof. Jehuda Haddad, SCE president)

The SCE was established in 1995 and is the largest engineering college in Israel, with more than 5,500 students and more than 9,300 graduates. The College offers B.Sc. and M.Sc. degrees in most engineering fields offered on two campuses, one in Ashdod and the other in Beer Sheva. SCE promotes excellence in research and teaching and partners with industry and the international scientific community.

The SCE vision is to lead to a better world through engineering. SCE focuses on leading social change through education in the engineering and technology fields. Our mission is to impact the future of southern Israel with excellence in education among diverse population groups and to foster entrepreneurship and leading applied research that affects the entire nation.

The college trains creative and ambitious professionals who are driven by a desire to innovate and change and that meet the growing demand for a technological workforce with an entrepreneurial perspective and a high scientific-academic level. SCE students and graduates acquire all the professional, applied and academic tools they will need in order to pursue their profession.
Dear Friends,

In 1995, we founded SCE to realize the dream of the first Israeli college wholly dedicated to reducing the socio-economic inequality in the country through engineering. Today, some 15% of Israel’s hi-tech engineers are SCE graduates. We continue to invest in a diverse student body and attract students, including those from low income families, and other communities.

SCE offers motivated students from small towns and larger cities in the south of Israel a chance to study engineering and create a bright future for themselves and their families.

With the help of dedicated educators and a curriculum of excellence, our graduates are now active entrepreneurs and scientific leaders. The engineering education we provide creates a better future in Israel’s southern heartland, through expanding economic opportunity and boosting national security.

SCE believes in high academic standards and personalized support so that each student can successfully navigate his career challenges that await. At SCE, we are proud that behind every R&D project, innovation and patent, there stands a motivated, creative engineer dedicated to a better tomorrow. I invite you to be part of this national initiative that is changing the face of Israel’s economy on a local and national level.

Professor Jehuda Haddad
President, SCE College of Engineering
As an entrepreneurial and leading academic institution, the College of Engineering in Ashdod shapes Israeli society and the future of Israel. The profile of an graduate is a professional, inquisitive engineer that thinks of creative ways to care for humanity.

runs programs that motivate students to harness engineering skills to create social change. These include study programs at the Entrepreneurship and Innovation Center, social involvement scholarships and community volunteer programs.

Applied engineering, style, is a powerful driver of social change.

Dedicated in 2013, SCE Ashdod added a custom study program that is adapted to the culture of the Ultra-Orthodox community, to attract students from the community. Integration of the Ultra-Orthodox community into Israeli society is necessary for the growth of the Israeli economy. The program is of national strategic importance and the College is proud to take part in this mission.

Thanks to the dedication of our students and graduates, who strive to improve the overall quality of life through technological-engineering developments, engineering has become an integral part of society and a driver of social change.

“Be the change you wish to see in the world”
(Mahatma Gandhi)
Faculty and students conduct extensive research, including cross-departmental collaborations as well as international collaborations. The advanced applied research centers collaborate with both industry and the international scientific community.

The R&D arm supports extensive and wide-ranging research by hosting and participating in events and conferences, signing international cooperation agreements and operating research centers engaged in topics of global significance. Some researchers enjoy prestigious (international) grants and awards.

Research Centers:
- The Center for Reliability and Risk Management
- The Energy and Numerical Simulations Research Center
- Electric Drive Research Center
- The Center for Health Statistics and Bioinformatic Engineering
- The Corrosion Research Center
- The Green Processes Center
- The Center for Thermo-Mechanics and Failure of Material
- The Center for the Study of Ceramic Materials

Applied Research Centers:
- Biomaterials and Regenerative Medicine
- Software Quality in Advanced Environments
- Electro-Optics, Laser Technologies Development and their Applications
- International Research and Development Center for Pumping Machinery
The key to high-level academic standards in all the engineering departments and maintaining international teaching and research standards, is in joint ventures with global research institutes. The cultivation of student and faculty exchange programs and promotes international study programs:

- **Erasmus+** is a European Union (EU) exchange program. Students and faculty participate in its innovation and knowledge sharing projects and employ their advanced teaching technologies.

- **Onward Israel Internship** is an eight-week program. Jewish students from abroad are paired with SCE faculty members. They engage in research and help advance active projects, while using the SCE’s research laboratories and advanced resources for their own projects.
RELATIONS WITH LOCAL INDUSTRY

The Project-Oriented study environment at SCE offers students practical experience in industry during the course of their studies. Participating students develop helpful relationships with project and company managers. They learn to navigate the business world before graduation.

This ‘work-study’ method has proven itself time and again, across Israel, and especially in the south. Companies in the southern region have gained much from the fresh and creative approach of SCE students who are trained to think “outside the box.” Participating companies seek students to help solve real-world challenges and advance industry projects. Students have developed groundbreaking projects for the military, chemical, and traditional industries.

SCE study tracks were developed in response to Israel’s economic needs. As a result, more than 90% of graduates are employed in their field of study and SCE is renowned for its top-notch engineering education.
ASHDOD – A CITY WITH MOMENTUM

The city of Ashdod has doubled its population in two decades and grown to be the fifth largest city in Israel. The city is committed to offering a high quality education that stresses excellence, equality and achievement.

The university has offered courses in Ashdod since 2003, and continues to expand together with the city. The vision of the university to lead to a better world by means of engineering education, is well-matched with the Ashdod vision to focus on building community resilience, provide equal opportunities and empower individuals.

The university is producing the future generation of engineers in Ashdod, who will find their place in municipal architecture projects, high-tech companies, the defense industries and in the development of future technologies. Collaboration between academia and industry will produce highly qualified professionals that will strengthen the fabric of the entire local population.
PARTNERS AND FRIENDS

The College builds and maintains relationships with loyal friends and supporters in Israel and the world over that help the College advance its activities and values.

Support for research, social projects and scholarships are the backbone of the College. Every advanced laboratory and new facility you build, gives students tools to master the world of engineering. Thanks to you, they will be prepared for the career challenges Israel and the international markets face in the future. You ensure a better life for graduates and for the future of the State of Israel.

As a friend of the College, you give students an engineering degree that opens a world to them. You educate a generation of forward thinking Israelis with a bright future.

Contributors maintain the College’s academic quality and its research and social excellence. Through innovation, friends of the College ensure new areas of development and that the college faculty continue to lead in creative approaches to problem solving for consumers, industry and the military.

Areas of support include:
• Research projects
• Student scholarships
• Advanced laboratories
• Social projects in the community schools and centers

Friends and supporters realize its vision for a better world.
GRADUATES AND INFLUENCERS

Graduates have a valuable advantage when they apply for jobs. They are well acquainted with the foundations of engineering, and they have developed personal and business relationships with potential employers and key people in industry in Israel and the world.

Over twenty years, SCE has trained more than 9,300 B.Sc. and M.Sc. graduates. More than 93% of our graduates are gainfully employed in their field of study and in line with their practical experience.

Some graduates are business owners, others are employees and researchers that continue their studies in leading institutions in Israel and around the world.

A high percentage of the graduates stay in touch with the college as guest lecturers, conference participants, teaching and research faculty. They are an important link between the college and the companies in which they are employed, facilitating research collaborations, project guidance and more.

“SCE gives you the opportunity to study engineering. Its caring faculty helps us to excel and reach high achievements.”

— Lior Vaknin, Port mechanical engineer at the Ashdod Port.
A COMMUNITY ORIENTATION

seeks to involve students in value-based and educational undertakings that help cultivate the general community.

Focus is directed at motivating high school students to aspire to an engineering degree, especially for women.

Communal activities are held on the campuses and in local neighborhoods. We offer enrichment courses for neighborhood residents, run a “women in engineering” program, host local resident painting exhibitions, lectures and tours for high school students. offers environmental leadership and a scientific mentoring program.

ENGINEERING SOCIETY HACKATHON
hosts an annual conference that aims to improve the quality of life with engineering tools to achieve social impact. Social problems are identified, assessed and solved by harnessing technological knowledge and experience.

The conference schedule includes a hackathon. Participants develop solutions based on social-engineering thinking as well as business and design aspects. Entrants work in teams, in a highly competitive environment, with a limited time frame. Teams are accompanied by experts in the relevant fields, and the hackathon outcomes are presented to a forum of experts.

GREEN CAMPUS
established a Green Council as an expression of its environmental vision. Council members include students and faculty and they promote environmental awareness across the college campuses. Students study green engineering, green chemistry and green technologies at the Green Processes Research Center.

GOOD DEEDS DAY
Good Deeds Day is an annual public event of ‘fun and learn’ for the entire family, at the end of the school year. It is a day of volunteering and helping people of all ages that are in need. The community pulls together to fix and paint homes of the elderly, create interesting activities at the local immigrant absorption centers and host a large fair – with art workshops and themed booths like ecology and recycling.

COURSES FOR THE COMMUNITY
offers Continuing Education for neighborhood residents near the Beer Sheva and Ashdod campuses. Courses include English, Computers, Building Maintenance and the Art of Recycling. One-off public lectures cover a range of engineering topics.

ENGINEERS FOR THE COMMUNITY
Mechanical Engineering students at are paired with high school pupils. They work together on projects at a “Havayedah” or “experience” center set up in the school. Pupils learn scientific ideas and are exposed to potential opportunities that a higher education offers through games, and activities.

SCIENTISTS’ NIGHT
The Scientists’ Night event is an annual event co-sponsored by the Ministry of Science, Technology and Space and the EU. It is an open house for the community and includes science activities, lectures, workshops, study sessions with researchers, and tours of research laboratories.

THINKING MATHEMATICS
Graduates of the “Developing Mathematical Thinking” program run a mentorship program for high school pupils that helps teenagers develop their mathematical thinking through creative and experiential exercises.
classes are offered in rented facilities in Ashdod. The college recently laid the cornerstone for a new campus. 150 dunams were allocated to ensure the academic future in Ashdod for thousands of students. The first stage of development will be built on an area of 46 dunams. Construction will be modern and environmentally ‘green’.

is nurturing the future generation of engineers who will find work in key industries, including the municipality, local high-tech companies and defense industries. The new campus is an historic and groundbreaking building project for the College and for the city of Ashdod. It lays strong foundations for the promising technological future.

received the approval of the Council for Higher Education to establish a faculty of (engineering and) design that will offer interior design, visual communication and product design studies – and for the first time in southern Israel – the opportunity to study architecture.
CIVIL ENGINEERING
Specialization tracks: Structural Engineering | Tunneling and Underground Construction | Transportation Engineering | Marine Engineering

The major advancements in Israeli construction over the past decade has resulted in a great demand for professional civil engineers. Billions of shekels are invested annually in infrastructure projects – from water recycling and desalination plants, through roads and railroads, to the building of the Training Base (Bandim) City in the Negev.

The study program trains civil engineers with theoretical and applied knowledge in the planning, management and execution of construction works. The program incorporates market needs for professional and creative civil engineers with broad qualifications for projects like roads, bridges, railroads, tunnels, airports, skyscrapers, water supply, sewage and buildings for a variety of purposes. In all study fields, emphasis is placed on familiarity with up-to-date computer systems used by engineers in all their areas of work.

CHEMICAL ENGINEERING
Specialization tracks: Process Manufacturing | Biotech | Energy

Chemical engineers are involved in a range of science and industrial fields, among them drug development and production, water desalination and enhancement, food product development, fertilizers and biological products.

Undergraduates acquire scientific and engineering tools and the qualifications to develop chemical and biological processes and innovative products, to perform optimization of existing processes, and to manage manufacturing processes. They are equipped with a broad perspective that takes considers economic, environmental and safety aspects.

The department offers a Master's degree program in green engineering. Students learn to appreciate the importance of the environmental, social and economic impact of the of planning, operation and management phases of systems and processes. Graduates are equipped with the technological tools and approach necessary to benefit both the human and natural environment.
MECHANICAL ENGINEERING
Specialization tracks: Mechatronics | Product Planning and Design | Natural Gas
Mechanical engineering encompasses numerous engineering fields. It is the foundation for all developed modern industry. The study course includes research, planning, development, production, and maintenance processes of various and diverse systems.
Our undergraduate study program is unique in Israel. Their engineering studies are crossed with multiple disciplines, giving every graduate an opportunity to become industry leaders in integrated system planning and development.

SOFTWARE ENGINEERING
Specialization tracks: Computer Communication and Data Security (Cyber)
From biotechnology and medicine to networks and computers, from wireless communication to telecommunications and security – software engineers are needed everywhere in modern life. The software industry has grown exponentially in recent years, in both scope and complexity, with requirements changing at a dizzying speed in an increasingly sophisticated and competitive market.
The study program combines fields from computer science, engineering and industry. It equips software engineers with analytical skills and in-depth knowledge of algorithms, systems analysis and systems reliability.
SCE offers a Master’s degree program that provides students with advanced scientific and research knowledge and problem solving tools. The curriculum covers topics such as software development processes, information and communications systems, computer architecture, operating systems, software paradigms and software lifecycle methodologies.
Industrial Engineering and Management

Specialization tracks: Information Systems | Engineering Project Management

Industrial engineering and management cover a broad spectrum of subjects relating to engineering, economics, information, organization and management. It employs principles and scientific methods pertaining to planning, design, operation and problem solving in combined systems of equipment, materials and people.

Students gain a wide range of tools and knowledge necessary for management decision making and problem solving. System management and operation, process analysis, planning and integrating information systems in an organizational system, analytical analysis and optimization of complex systems, planning and decision making under conditions of uncertainty, the study of work methods, economic analysis, marketing, management, quality assurance and more. Integration of this knowledge allows for high-level planning and management.

The faculty offers a Master’s degree program that trains engineers for senior management positions and provides them with extensive and up-to-date knowledge in the industrial management field. Students learn innovative engineering methods, advanced technologies, management methods and tools and skills to help them advance to key positions in business, industry, research and academic pursuits.

Electrical Engineering and Electronics

Specialization tracks: RF Systems | Electro-Optics | Communication | Satellites and Space | Power Systems

Students learn to specialize in different areas; as electrical circuit developers, control and communications engineers, electrical engineers in industry and power plants and engineers of industrial control and automation systems.

The knowledge they acquire in their electrical engineering studies enables graduates to find employment in a wide range of fields. Department graduates are employed in leading companies – among them Elta, Intel, Negev Nuclear Research Center, Amdocs, and Israel Electric Corporation.

The faculty offers a Master’s degree program in power supply systems, with an emphasis on the developing energy market. Students learn in an environment where theoretical studies converge with high-level hands-on experience. They can specialize in electrical circuit development, in electronic devices and computers, and advance to senior electrical engineering positions in leading companies in Israel. The program aims to train the next generation of senior engineers, leaders at both the research and applied levels.