

Better World for All....



Contents

Page

FUE Sustainability..... 3

Devotion to Sustainability..... 3



Research Output and SDGs..... 4



Teaching and SDGs..... 4



Good Health and Well-Being..... 5



Quality Education..... 7



Gender Equality..... 8



Affordable and Clean Energy..... 9



Reduced Inequality..... 10



Climate Action..... 11

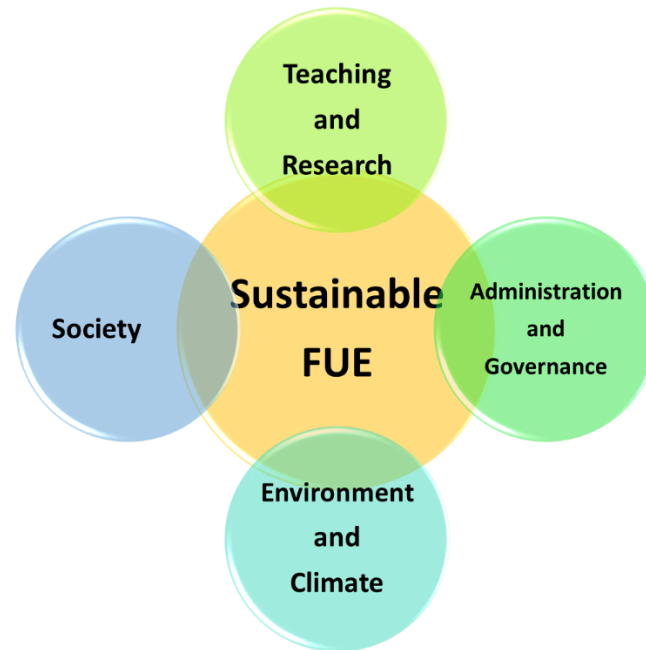
FUE Sustainability

Inspired by Egypt 2030 Vision, the sustainable development plans in FUE were set to serve the UN sustainable development goals, as a general framework, for improving the quality of education and welfare, taking into consideration the rights of new generations in a prosperous life with three main dimensions:

- Economic
- Social
- Environmental dimensions

At the heart of Cairo, FUE is a leading university committed to international excellence, high-quality, inspirational teaching, and world-changing research.

FUE's contribution to the SDGs has been mapped using a varied methodology. The mission statement of FUE affirms a commitment to "an atmosphere that values intellectual curiosity and the pursuit of knowledge while preserving academic freedom and integrity". FUE is thus committed to creating environments where freedom of inquiry occurs in a climate of inclusiveness and civility. Central to this commitment is the principle of treating each member of the University community fairly and with respect. To encourage such behavior, FUE prohibits discrimination, disrespect, and harassment and provides equal opportunities for all community members regardless of their race, color, religion, ethnic origin, ancestry, medical condition, marital status, gender, or age. Where actions are found that violate this standard, the University will take prompt action to end the offending conduct, prevent its recurrence, provide corrective training, and, when necessary, discipline those responsible.



The FUE sustainability planning comprising four core areas: Teaching and Research, Society, Environment and Climate, Administration and Governance.

Devotion to Sustainability

FUE is a member in the **Higher Education Sustainability Initiative**, which is an open partnership between several United Nations entities and the higher education community launched in the lead-up to the Rio+20 Conference in 2012. Through its strong association with the United Nations, HESI aims to provide higher education with an interface between higher education, science, and policy making by raising the profile of higher education's sector in supporting sustainable development, convening multi-stakeholder discussions and action, and sharing best practices.

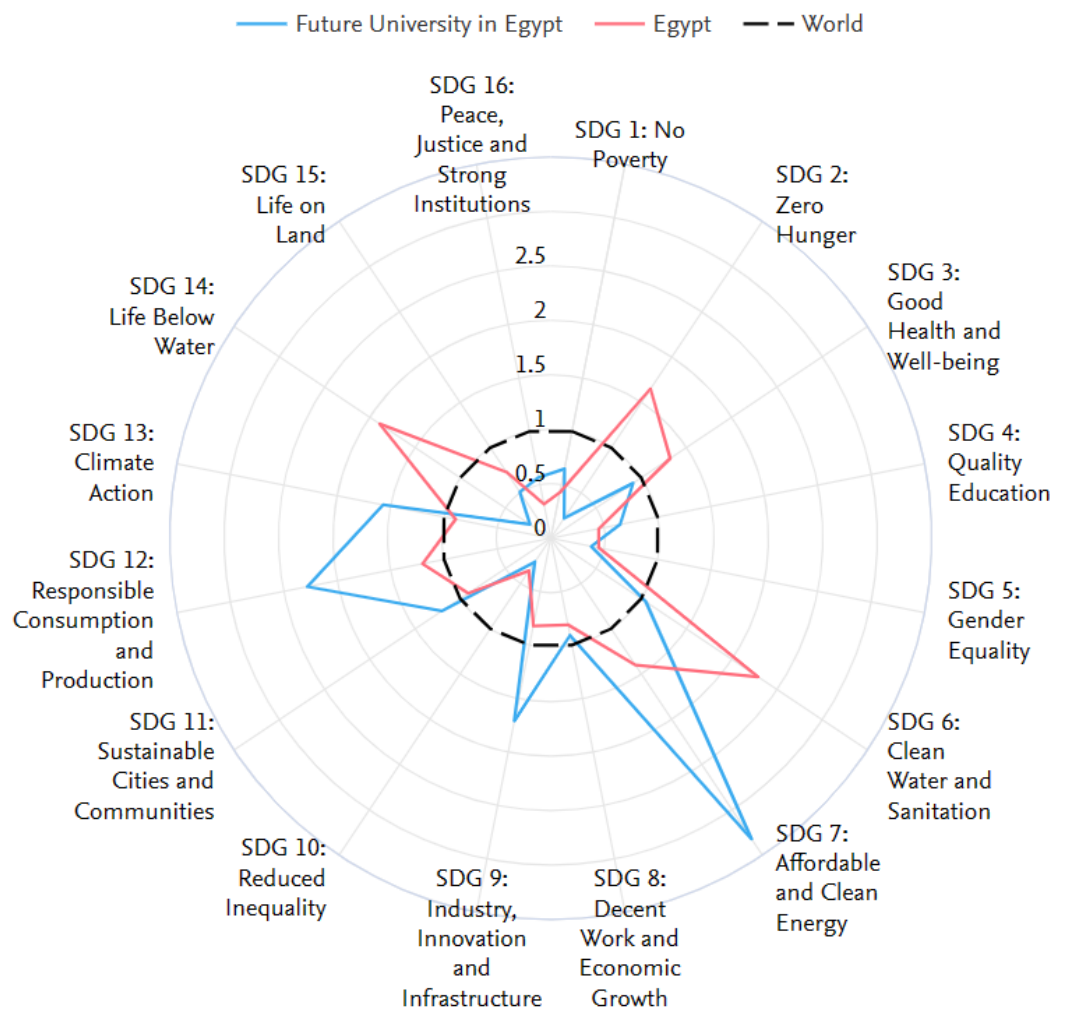


FUE has embraced sustainability to handle environmental issues and climate changes including scarcity of resources, pollution, and waste management. The University's commitment to sustainability subsumes three main areas, namely: the management of Water, Energy and Waste. The purpose of these initiatives is to use resources wisely and effectively. FUE arranges annual seminars, events, and workshops, in face-to face or online, to create, develop and raise awareness of the effective management of water, energy and waste throughout the students, staff, faculty and community. The University includes an annual event entitled "Sustainability at FUE" where newcomers are oriented on sustainable practices.

Research Output and SDGs

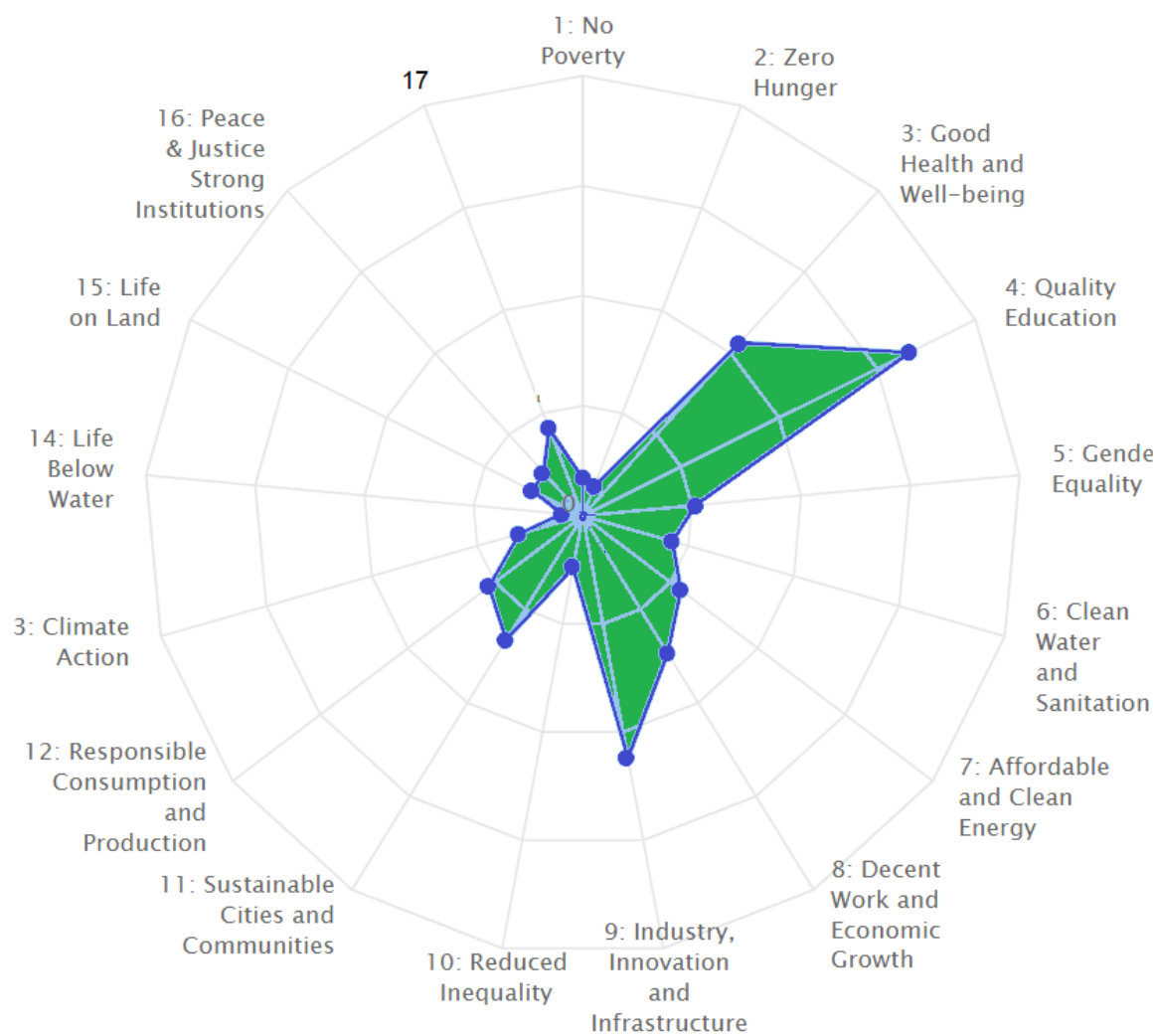
FUE's SDG contribution has grown over these 16 years. From 2006, FUE published science-related journal and conference papers. According to Scopus SDG mapping and the descriptions of the 17 SDGs, most of FUE publications identified to be relevant to the goals. Given the interdisciplinary nature of research required for each SDG, each of FUE staff and researchers produce papers that can contribute to more than one goal. For the SDGs, the Relative Activity Index is calculated for FUE by looking at the total publications for an SDG, divided by the total publications.

Affordable and clean energy (goal 7), good health and well-being (goal 3), Industry, innovation and infrastructure (goal 9), Climate action (goal 13), and responsible consumption and production (goal 12) are the top SDGs supported by FUE's output. The high concentration of articles on affordable and clean energy and climate change may indicate some top-down influences, in line with Egypt 2030 strategies.



The listed FUE's output for SDGs are based on the Elsevier SDG Mapping (from 2013 to 2022).

Teaching and SDGs



The listed FUE's courses and modules for SDGs.

Many of FUE courses and modules are aligned, through teaching, learning, and contents, with the UN SDGs.

For the six faculties and their wide spectrum curricula, the courses are classified into three categories:

- Courses that use action-oriented pedagogies related to SDGs.
- Courses indirectly including topics related to the SDGs.
- Courses provide insight into the SDGs from certain perspective.

Quality education (goal 4), good health and well-being (goal 3), Industry, innovation and infrastructure (goal 9), decent work (goal 8), and sustainable cities (goal 11) are the top SDGs supported by FUE's teaching.



Ensure Healthy Lives and Promote Well-Being for All at All Ages



TEACHING

- 213 Course in several disciplines

RESEARCH



- 250 publications



Sample Medical Conveys 2022

Community Service and Environmental Development Sector, Faculty of Pharmacy arranged a medical and awareness convoy to Al-Ahly Club on Saturday 19/11/2022, under the supervision of the Vice Dean for Community Service and Environmental Development.

The University supported the Convoy by providing the necessary devices for measuring blood pressure and blood sugar levels and a bus for transportation.

A total of 24 students from the third, fourth, and fifth levels of the Faculty of Pharmacy participated in the convoy, under the supervision of 4 Teaching Assistants.

Around 100 members of the club attended the convoy and were presented awareness about the harms of narcotics, smoking and anabolics as well as products samples from the Future Factory from Industrial Training.

Dental Therapeutic Convoy



As part of our university's obligation towards community service, the faculty of Oral and Dental Medicine organized a therapeutic convoy to the underprivileged area of "Mansheyet Nasser". Forty-five students, 5 interns accompanied by one of our qualified nurses and supervised by 3 of their TAs and assistant lecturers oversaw this volunteer mission.

The convoy involved a dental awareness campaign alongside the provision of preventive dental care. A total of 80 patients were treated. The patients were taken care of in a local community dental clinic and FUE supplied the necessary dental material and instruments.

MEDICAL CARE AND CLINIC SERVICES:

1. The Clinic

Is responsible for the students' medical checkups, treatment in the case of emergencies, prescriptions, transferring students to hospitals, to the on-campus medical consultants.

2. The Consultants' Clinics

Consultants in all specialization are available at the Clinics from 10:00 am - 2:00 pm. Medical cases are transferred the Clinic.

3. NEXTCARE

The insurance company provides different types of medical services; transfers of medical cases are handled by the Clinic except if an emergency takes place when the students is not on campus. In this case, the student/employee must immediately proceed to the nearest hospital

4. On-campus Branch of Meta-Lab Laboratories

The on-campus branch is open from 9:00 am - 4:00 pm. All types of analysis are available on a transfer basis made by the Clinic.

5. Ambulance

Is available on daily basis to transfer emergency cases from university to the required destination.

Future Pharmaceutical Factory

Starting from receiving the raw materials, formulation, production till receiving the product and quality control of the manufactured product. The students attend undergrad courses of industrial 1 and 2 during the academic semester. An intensive training program includes a detailed knowledge of different pharmaceutical, incompatibilities, and basic requirements of formulation of different dosage forms. This course helps different community pharmacists and pharmacy owners to produce and sell their own products. The factory played a paramount role during the COVID-19 period through manufacturing and distributing disinfectants and hand sanitizing gels, in recyclable containers, for the students, staff and for the public in different campaigns.



FUE Dental Hospital

offers crucial role in serving the community through training, treatment, and awareness of dental health. Patients from different poor areas all over Egypt are freely brought to the hospital by the University buses and are treated freely from various dental disorders.



2000

Patients/Month
FREELY treated

The Psychological Health and Human Development center

developed with mindful of mental health professional commitment to promote human welfare and reduce the suffering caused by emotional distress. The psychology staff defines their role as professional providers according to the national and international psychological health standards.

The Psychological Health and Human Development Center provides an array of services consistent with the scope of psychology practice. This practice includes, but not limited to, individual and group therapy, psychological diagnostic evaluation, consultation, training, workshops, and research.

The psychological health and human development Center is considered very essential component and integral part of the Future University Organization. The Center's services refer to the application of principles, methods, and procedures for understanding, predicting, and alleviating intellectual, emotional, psychological discomfort

Sports Facilities



The **FUENERGY GYM** serves FUE students, FUE Employees and their families. The gym offers the latest athletic equipment and programs in a clean and comfortable environment. The gym staff is made up of highly qualified trainers that are able to provide personalized health programs and work out routines. The Gym also provides health education seminars conducted by well know nutritionists and doctors as well as classes such as Aerobics, Dance, Pilates and Kickboxing.

FUENERGY GYM includes:

- Dressing, fitting Rooms
- Individual lockers.
- Showers.



FUE's **boxing ring** is designed according to professional measurements and standards. The ring is approximately 610 cm in width, 610 cm in width (inner space) and 85 cm in width (perimeter). The ring is available on campus and is used for training and professional boxing matches. There seems to be a growing interest in boxing, this is evident in the number of students who are in the process of joining the boxing team. This fact may be explained in terms of the on-campus presence of the boxing ring.

Other Sports



“Future University in Egypt aims to create a healthful and comfortable environment for students, faculty members, administrators, visitors, and any other members of the university’s community.”



3 GOOD HEALTH AND WELL-BEING





Ensure Inclusive and Equitable Quality Education and Promote Lifelong Learning Opportunities for All



TEACHING

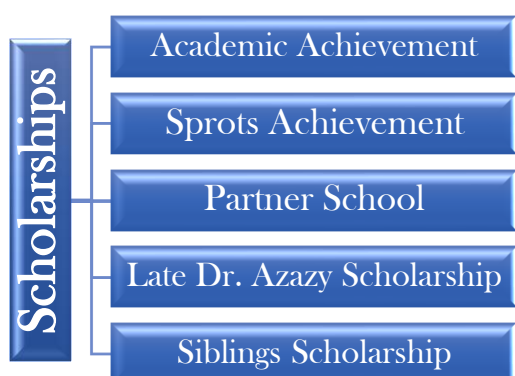
- 76 Course in several disciplines



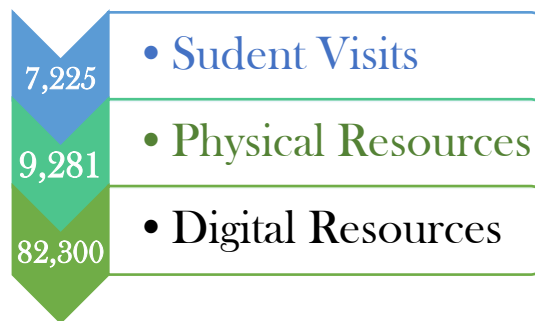
RESEARCH

- 13 publications

FUE adopted several strategies and policies to ensure the quality and inclusive in education for all. **ALL** of the university's faculties have obtained **accreditation** from the National Authority for Quality Assurance and Accreditation in Education (NAQAAE). Most of the programs are developed to introduce curricula in line with the development goals. In addition, the faculty of Computer Science and information technology was submitted for the accreditation by Accreditation Board for Engineering and Technology **ABET**, and the faculty of pharmacy is subited for accreditation by Accreditation Council for Pharmacy Education **ACPE**. FUE participates in many agreements with national and international universities as well as industrial entities to provide student exchange, mobilities, and field training. Scholarships are offered by partner universities, for different programs, to FUE students and staff. In addition, FUE established the **English language department** which includes internationally recognized certificates as Cambridge CELTA. The ELD also administers international English proficiency tests, e.g. (CEPT, IELTS and OET). In addition, the university is hosting IGCSE mock exams for the ICT course. Moreover, FUE is distinguished for the online teaching/learning with its advanced facilities and tools.



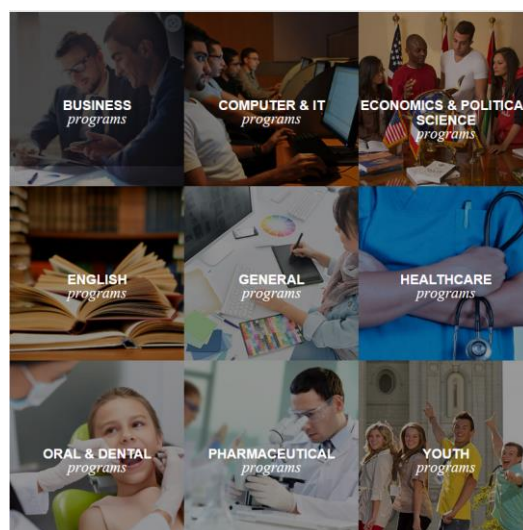
The Mission of the **FUE Library** is to support instructional, and research needs by providing high-quality services to faculty, students, and researchers by offering the best available resources and the latest information technology. It is committed to providing many services to reflect, support and fulfill the institutional vision and mission. Its aim is to *collect, organize and facilitate* the use of information resources that will support the educational and research programs of the University.



FUE library provided e-supplements for the textbooks through the university's digital repository. The library provides training courses on using the Egyptian Knowledge Bank (EKB).



Department of **Continuing Education** (DCE) is dedicated to bridging the gap between the capabilities of graduates, students and the job market requirements.



22

Educational Awarness Campaigns

FUE admits Policies to ensure the **access to learning** activities to **everyone**, such as computers, library, online courses, access to lectures, etc, for those who wish to participate, *regardless of ethnicity, religion, disability or gender* in order to improve knowledge and competencies for all individuals.

FUE signed several MOUs to provide **internships** and summer **training** to the students in several domains, including the ICT, Engineering, Pharmacology, and political science.

FUE welcomes school students, parents, and teachers onto campus for activities designed to provide awareness in different careers available and promote the potential benefits of the higher education in Egypt. Many **outreach** activities (e.g. tailored lectures or demonstrations) in local schools, clubs, associations, in the community to help teachers raise aspirations of young children and prepare older pupils for applying to universities in the near future.

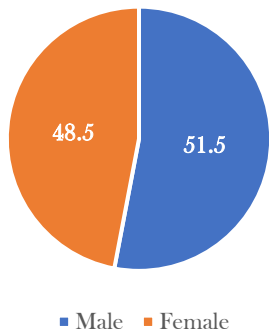


The university has moved into the age of hybrid learning (**blended learning**) through the application of **digital transformation mechanisms** in the development of the educational and research process. FUE applies different systems in interactive learning, depending on its strong technological infrastructure, which uses advanced and specialized software and platforms such as Moodle, online meeting tools, messaging software relying on the qualified educational calibers.



Achieve Gender Equality and Empower All Women and Girls

New Comers Student Ratio



Male Female

FUE is committed to eradicate any form of discrimination or inequality within the University. *all the University services are available and accessible to all staff and students, irrespective of gender.* Any act of discrimination that affects students and/or staff by students and/or staff is reported and not tolerated.

“Eliminate gender discrimination, promote gender equality, preserve human dignity, and establish educational resources to obtain gender equality”

RESEARCH

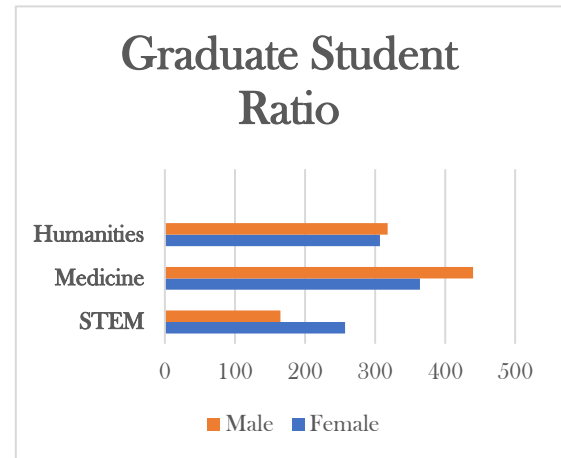


- 6 publications

FUE supports the principle of equity in all areas of university life, which is reflected to an increase in the females. *Women can participate in women empowerment activities and can occupy positions in FUE* such as deanship, vice-presidency, and directorship. The University provides non-discriminatory educational opportunities regardless of social status, gender, religion or disability. FUE rejects all discriminatory acts against female students and staff in admissions. The University has taken, and will continue to take, affirmative action to recruit and advance qualified women, racial and ethnic minorities and individuals with disabilities. All disabled students are provided with the educational opportunity and accessible services with no discrimination to their type of disability.

“Allowing women to apply, study and participate in all activities in FUE”

FUE aims to protect students, job applicants and employees from discrimination based on a protected status/characteristic in recruiting, hiring, appointment, transfer, promotion, tenure, classification, referral, discharge, layoff, compensation, benefits, job training, tuition assistance, participation in university- sponsored educational, social, and recreational programs, and other aspects of employment. Consistent with applicable law and the University’s Non-Discrimination and Anti-Harassment Policy and Complaint Procedures for Employees, this Policy prohibits such discrimination against job applicants and employees based on the following protected statuses/characteristics—age, color, creed, disability, domestic violence victim status, ethnicity, familial status, *gender and/or gender identity* or expression, national origin, parental status, partnership status, predisposing genetic characteristics, pregnancy, race, religion, and any other legally protected basis.



A great way for women of the university to share in those topics relating to women’s interests, whether in current events, women’s issues or fashion and style. In Girls Only Club, learn from friends their latest make up techniques or hairstyles or have a serious debate on women’s current events and issues. In an atmosphere of friendship, women can share ideas and ambitions and provide comfort and support for those with problems.

IEEE-WiE Affinity Group in FUE aims to promoting women students, engineers and scientists, and inspiring girls to follow their academic interests in a career in engineering and science. Also, WIE members make lifelong friendships, acquire influential mentors, and make a difference for the benefit of humanity. WiE in FUE has the largest number of members in Egypt.





Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All

TEACHING



- 122 Course in several disciplines

RESEARCH



- 305 publications

Many research groups in FUE are working on energy-efficient systems; which includes the design of solar panels, development and improvement of the photovoltaic systems. FUE is involved in a number of research collaborations that are leading the way to alternative energy sources such as wind energy and photovoltaic systems. One such example comes from Photovoltaics Group, who are developing single and tandem solar cells with higher efficiencies. The main target is to contribute in The University's commitment towards **reducing carbon emissions** impact by taking actions as set out in the **zero-carbon** plan. FUE discussed the Impact of Global Climate Change in a joint **seminar** with University of Cincinnati.

FUE adopted several implementations to ensure reasonable use of energy sources



Cycle, Walk, Use Public Transportation, Or Carpool



Turn Off Lights When Leaving



Unplug Electronics When Not in Use



Go Paperless, Whenever Possible

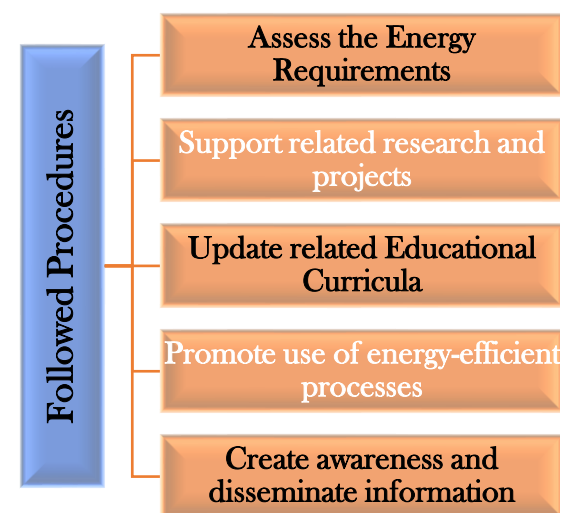


Close The Doors When AC Is On



Reduce overcooling/overheating

The effective implementation of **energy efficiency** in FUE buildings, involves the deployment of the established energy efficiency policy and plans. The formulation of an energy efficiency policy has been developed in partnership with relevant stakeholders. The policy was developed by the University technical unit which implement, facilitate, and enforce the efficient use of energy in the University buildings as well as establishing penalties for failure to comply to the energy efficiency building standards. In addition. Future University in Egypt Sponsored the First Strategic Forum for the 2030 Presidential Sustainable Initiative for Green Cities.





Reduce Inequality within and Among Countries

72 disabled Students

52 disabled Employees

566 from Developing Countries

Disability

FUE Disability Services

(DS) addresses the conditions of students with special needs. The purpose of DS is to enable students to effectively receive equal learning opportunities that enable them to academically perform successfully. Accordingly, DS is committed to resolving the difficulties that students with special needs may face. Disabilities may include mobility, hearing, visual or psychological impairments.

Irrespective of what the disability is, there are a few common services that DS extends to our students with special needs. Examples of these are to provide:

Disability Buddies

Designated exam areas for students who need disability buddies to sit for exams

Extra exam time for students who need disability buddies to answer exams

Extra Exam Time

Extra exam time for students with special needs and do not have disability buddies to answer exams

Extra Assignment Time

Students with special needs are given extra assignment duration time for completion of the assignment. Sometimes it may be necessary to break the assignment into smaller tasks.

Clear and Slow Instructions

Instructors and proctors pay special attention to students with special needs when it comes to giving instructions or asking questions which must be done in a way that accommodates the student's disability.

Software Assisted Education

Alternative exam methods that include the use of computer software for visual or auditory disabilities are available as per examinee's disability. Examples of these are text to speech learning tool; reading software; zoom text, screen magnifier; and speaking software, which is a speech to text recognition software.

Library Assistance

Library assistance when it comes to the different kind of ways the library is used, this may include searching for books, notetaking, reading, photocopying a section or chapter from a book and borrowing books.

Teaching Faculty

Though outside DS, yet FUE teaching staff willingly extend their office hours when a student with special needs wishes to meet with a faculty member and is unable to fit into the office hours schedule. Moreover, in the case of practical faculties, special needs' students carrying on lab work are given extra attention and time to complete their assignments.

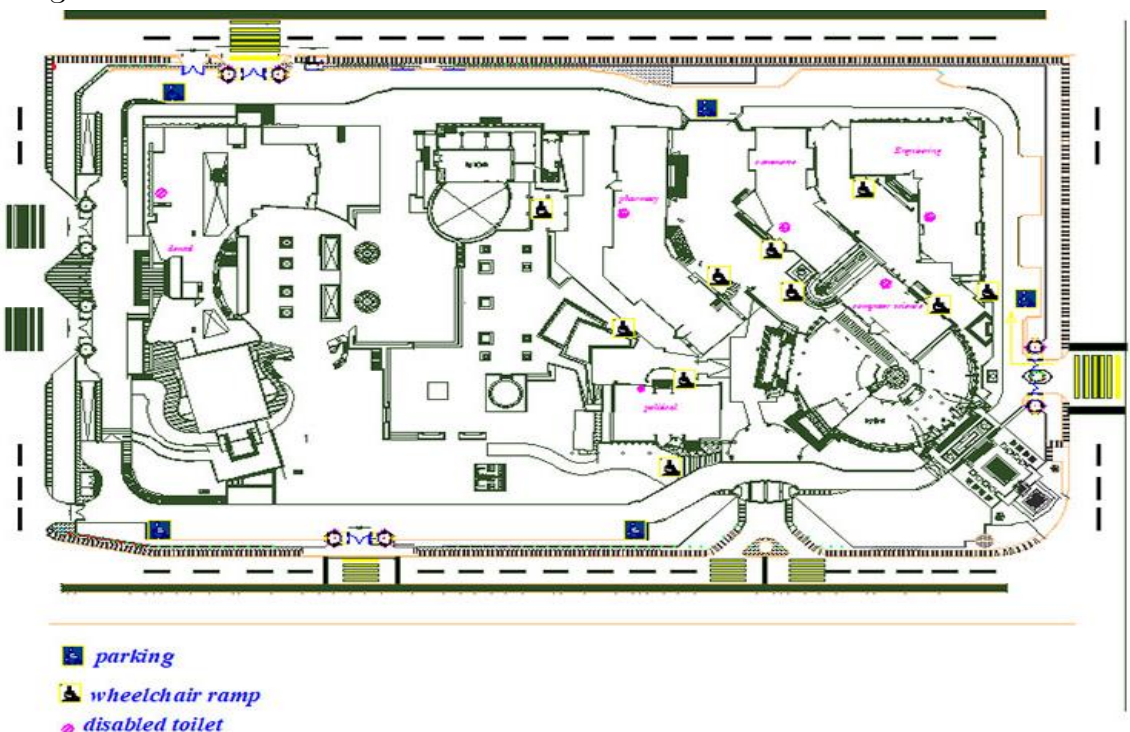
Support services for mental health conditions

The purpose is to address psychological needs and concerns by providing unique on-campus services that advance your academic accomplishment and improve the quality of your personal growth. These services include individual and group therapy, personal consultations, workshops, training sessions and psychological assessments.

Low Income Support

FUE Low Income Support students are identified and classified according to the following criteria:

- The total annual family income divided by the number of family members compared to the total amount of the family basic needs.
- The amount of funds is determined according to the gap between the basic needs and total income.
- The low-income students must be a graduate from a governmental school (no fees school) or from a private school but funded by a scholarship or with proven change in family financial condition.
- Every case is comprehensively evaluated before final decision. (Variable amount based on the tuition fees values)





Take Urgent Action to Combat Climate Change and its Impacts



TEACHING

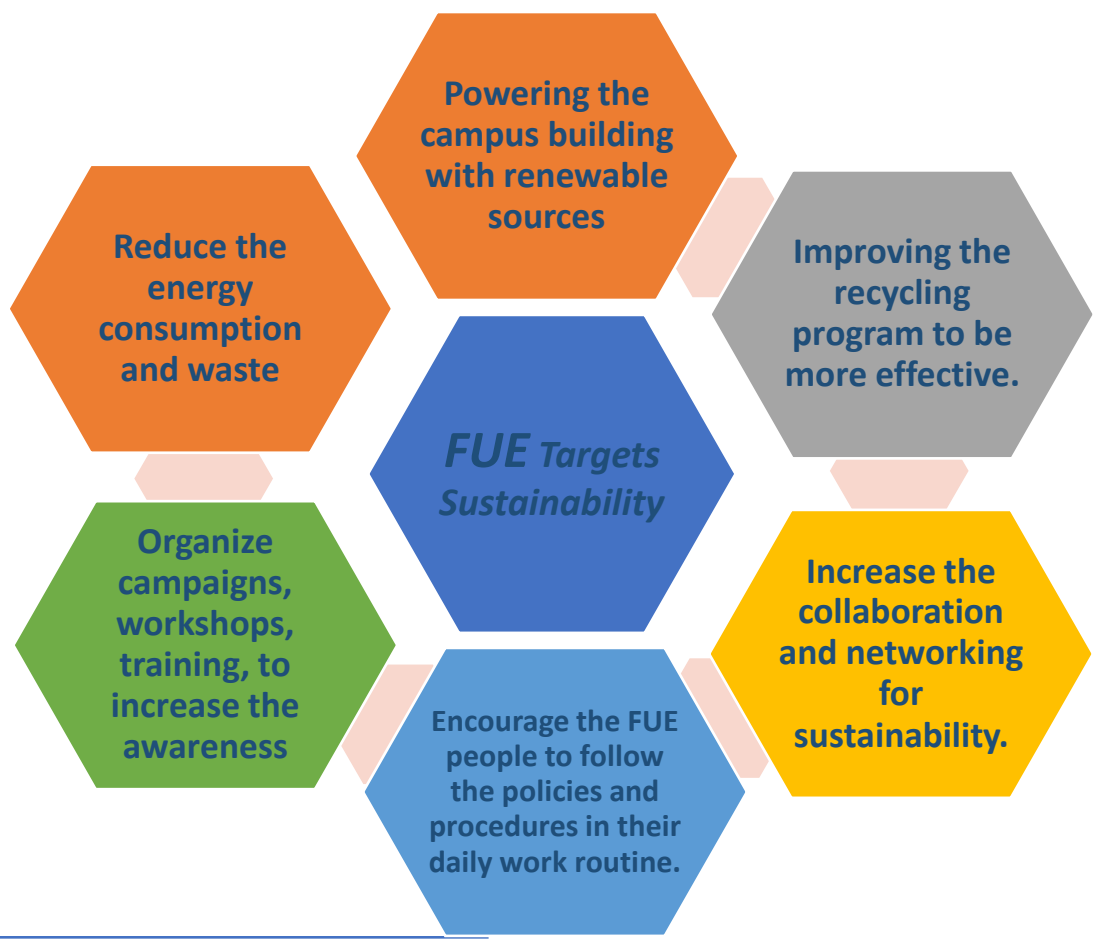
- 122 Course in several disciplines



RESEARCH

- 46 publications

FUE adopted several axes and wide range of programs, plans, and projects towards Net Zero Carbon.



Toward Net Zero Carbon

- Increasing the faculty members and professional staff in climate change adaption to improve the teaching, learning, and training both in virtual and face-to-face.
- Encourage student mobilities to achieve climate resilience internationalization and resilience practice.
- Encourage student organizations to support the sustainability.
- Adopt climate action principles and framework towards Zero-Carbon FUE.
- Help to bring voices to the UNFCCC COP 27, which will be held in Egypt 2022.





FUE

*Better
World for
All....*



CLIMATE ACTION SUMMARY

RECOMMENDATIONS OF THE CLIMATE ACTION FOR FUTURE UNIVERSITY IN EGYPT CLIMATE ACTION

- **Introducing FUE**

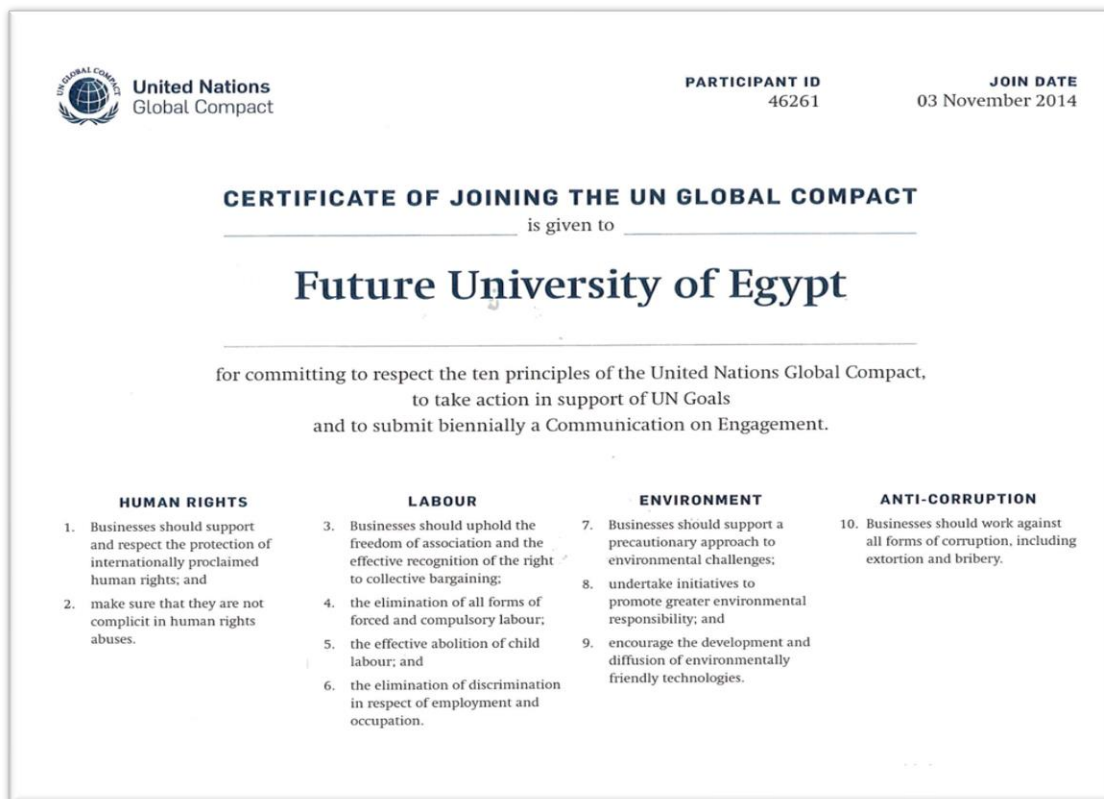
FUE Mission

“Future University in Egypt (FUE) is an educational institute committed to distinction, innovation, and quality standards. FUE’s priority is to stay abreast with the national, regional and international changes taking place in the interrelated fields of education, scientific research and community development, while consolidating values and professional ethics.”

The Mission Statement of Future University in Egypt (FUE) affirms a commitment to “an atmosphere that values intellectual curiosity and the pursuit of knowledge while preserving academic freedom and integrity”. FUE is thus committed to creating environments where freedom of inquiry occurs in a climate of inclusiveness and civility. Central to this commitment is the principle of treating each member of the University community fairly and with respect. To encourage such behavior, FUE prohibits discrimination, disrespect, and harassment and provides equal opportunities for all community members regardless of their race, color, religion, ethnic origin, ancestry, medical condition, marital status, gender or age. Where actions are found that violate this standard, the University will take prompt action to end the offending conduct, prevent its recurrence, provide corrective training, and, when necessary, discipline those responsible.

Community Engagement

FUE became a member of *UN global Compact* to advance the frontiers of knowledge and to serve society through education and research. The UN Global Compact is the world's largest corporate citizenship and sustainability initiative. Since its official launch on 26 July 2000, the initiative has grown to more than 12,000 participants, including over 8,000 businesses in approximately 145 countries around the world.



The Global Compact involves key social actors such as companies, whose actions it seeks to influence Governments, labor, and civil society organizations, and the United Nations as an authoritative convener and facilitator.

In addition, FUE is a member in the *Higher Education Sustainability Initiative* (HESI) (<https://partnershipaccelerator.netlify.app/hesi/>), which is an open partnership between several United Nations entities and the higher education community launched in the lead-up to the Rio+20 Conference in 2012. Through its strong association with the United Nations, HESI aims to provide higher education with an interface between higher education, science, and policy making by raising the profile of higher education’s sector in supporting sustainable development, convening multi-stakeholder discussions and action, and sharing best practices. It is currently chaired by the United Nations Department of Economic and Social Affairs (UN DESA). Other UN partners include UNESCO, UN Environment Program, UN Global Compact’s Principles for Responsible Management Education initiative, UN University, UN-HABITAT, UNCTAD, UNITAR, and UN Office for Partnerships.

FUE participated in the Race-to-Zero for Universities and Colleges, which committing the participants to the Race to Zero criteria and to have one year to develop targets and plans. The Race to Zero criteria is set by an Expert Peer Review Group, which comprises scientific and technical experts from around the world. The first Higher Education Climate Connection roundtable organized by the British Council and committed to Race to Zero criteria held on October 2021 and led by the high-level climate champion for climate action - Nigel Topping.



Race-to-Zero for Universities and Colleges

Also, in October 2021, FUE participated in the virtual roundtable to discuss the challenges of achieving food and water security with a number of distinguished guests. Along the same line, in April 2022 FUE invited, joined and participated in the ***African Green Universities and Youth Education Network*** (AGUYEN), hosted at the Hassan II International Center for Environmental Training (Centre), the academic entity of the Mohammed VI Foundation for Environmental Protection chaired by Her Royal Highness Princess Lalla Hasnaa has for

objective to promote the integration of environment, low carbon-climate resilience development strategies and elements of sustainability in higher education institutions and youth networks, while seeking to improve the skills and behaviors of future generations. This initiative aims to strengthen collaboration between universities and youth networks integrating research, innovation and sustainability in their strategies to advance good for sustainable development. Currently, this network includes 22 universities from 8 African countries (Morocco, Tunisia, Mauritania, Comoros, Senegal, Ivory Coast, Kenya, Uganda). The network is an initiative carried out by the Center in partnership with the United Nations Environment Program (UNEP).

In September 2022, FUE participated to a policy conference on Health, Food, and climate change which brought together UK and Egyptian scientists to author two policy briefs on *Health and climate change* and *Food, agriculture, and climate change*. The conference is organized by the Academy of Scientific Research and Technology in partnership with the British council in the framework of the Climate Connection Egypt program and aims to promote knowledge-exchange and discussion around policy briefs before submitting to COP27.

In October 2022, FUE invited by the British Embassy and the British Council to participate in the event “1 Month to COP27”, which was held in the Garden of his excellency the ambassador to Egypt Gareth Bayley residence

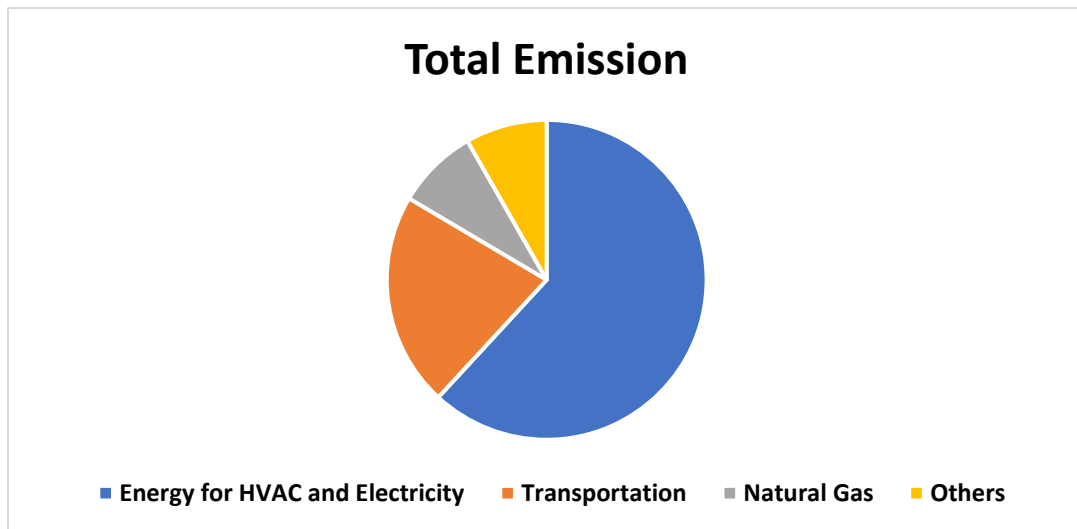


- **FUE Climate Action**

FUE adopted several axes and wide range of programs, plans, and projects towards Net Zero Carbon which include, and not limited to,

<h2 style="margin: 0;">Toward Net Zero Carbon</h2>	Increasing the faculty members and professional staff in climate change adaption to improve the teaching, learning, and training both in virtual and face-to-face.
	Encourage student mobilities to achieve climate resilience internationalization and resilience practice.
	Encourage student organizations to support the sustainability.
	Adopt climate action principles and framework towards Zero-Carbon FUE.
	Help to bring voices to the UNFCCC COP 27, which will be held in Egypt 2022.

Electricity in campus and student dorms, natural Gas, FUE Buses, and fleet are the main University’s direct emissions. Other emissions from transportation (students, staff) and waste disposal, which are considered indirect emissions, are also countable but difficult to control.

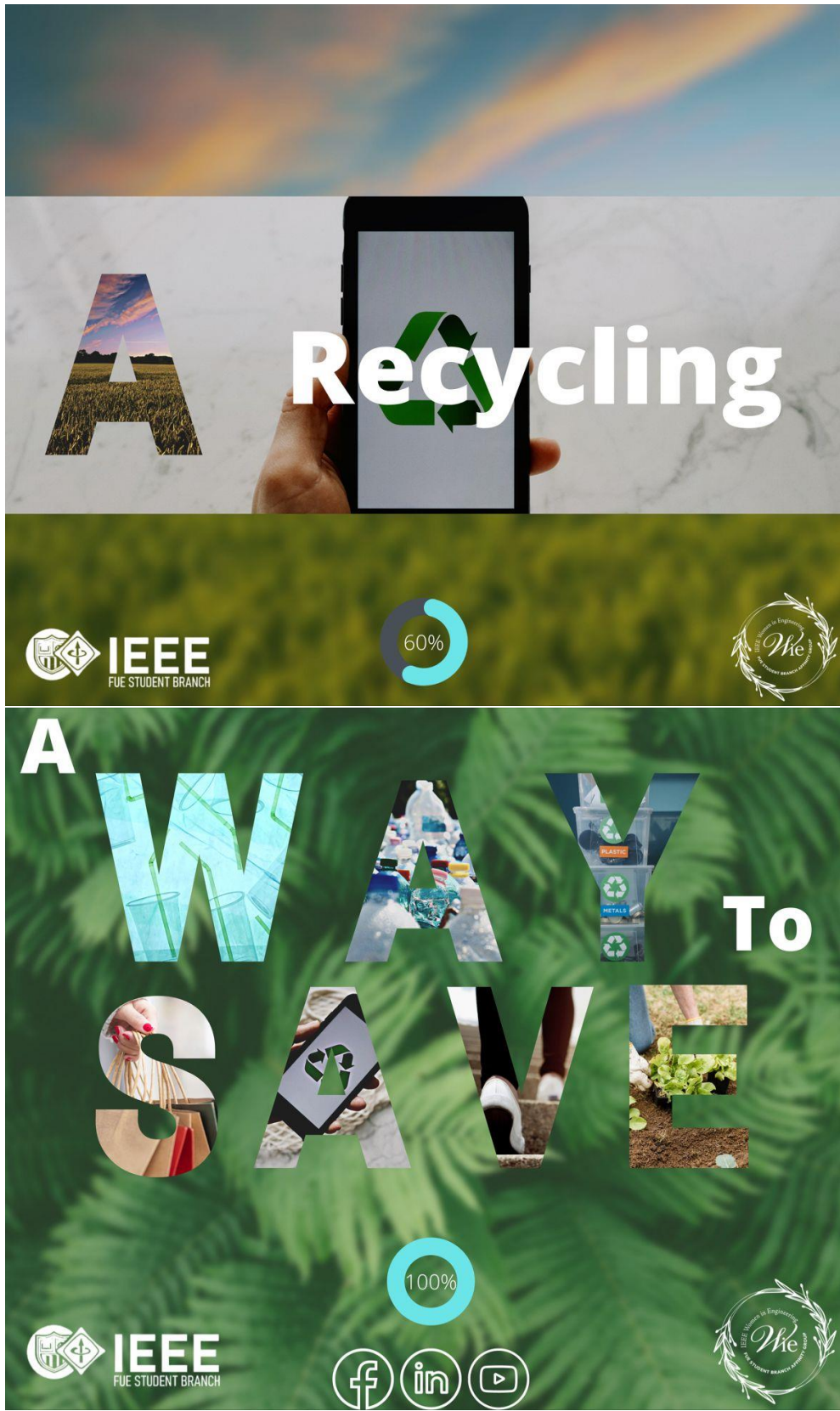


FUE adopted several strategic goals targeting sustainability and emission reduction such as:

- Powering the campus building with renewable sources such as solar panels and shifting from fossil fuel.
- Incorporate the concepts of sustainability into the programs and curricula.
- Reduce the energy consumption and waste:
 - Replacing the less efficient lamps and bulbs (halogen, incandescent, fluorescent) with high-performance LED lamps.
 - Provide and installing lighting controls and occupancy sensors.
 - Provide the necessary notifications and signs to turn off the lights and other electricity equipment when no use.
 - Upgrade the efficiency of the HVAC system by maintaining the insulating pipes to ensure that there is no leakage.
 - Improving the maintenance process of the existing air-conditioning systems.
- Organize campaigns and events, deliver workshops and training, and implement community projects with parties to increase the awareness of sustainability.
- Increase the collaboration, participation and networking in international forums and conferences for universities committed to environmental sustainability.
- Encourage the FUE people to follow the policies and procedures in their daily work routine.
- Improving the recycling program to be more effective.



FUE replaced the less efficient lamps and bulbs with high-performance LED lamps



FUE Students organize all-year activities toward the net-zero Carbon

- <https://www.fue.edu.eg/Article.aspx?AID=4621&WID=1>
- <https://www.fue.edu.eg/Article.aspx?AID=5059&WID=1>
- <https://www.fue.edu.eg/Article.aspx?AID=4627&WID=1>