



MUST Ranking Office

Misr University for  
Science and Technology

MUST Ranking Office



MISR UNIVERSITY  
FOR SCIENCE & TECHNOLOGY



Sustainability Report  
2022



SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	



## About Misr University for Science and Technology

In the year 1996, when High education in Egypt was primarily governmental, Misr University for Science and Technology was established to fulfil the legacy of its founder, Late Dr. Souad Kafafy whose main goal was community and its members. The university is part of a huge establishment that always puts society on top of its priorities. After Late Dr. Kafafy's will, the university remains the least in tuition fees among private universities to enable a large sector of students to fulfil their educational dreams. Not only that, but the university also adopts a system of scholarships for a variety of social sectors. MUST I campus, built on an area of 35 acres, is set in the flourishing 6th of October city, and is an attractive spot for students all over the country. MUST campus is a modern purpose-built one with an extensive greenery and a body of 14 faculties covering the major high education fields of study. A new campus, MUST II, is to launch its activities with the beginning of the academic year 2023-2024 to serve the upcoming student demands. Furthermore, believing in the importance of providing quality education in Upper Egypt, MUST is preparing to set up its new campus in Luxor.

Nevertheless, MUST has always strived to provide the best services for its students with its well-structured campus and distinguished staff. MUST has been recognized for effectiveness and notability of its academic programs as well as the success of its sustainability efforts and dedication to excellence. Aiming to become a smart university and moving towards becoming a paperless organization, MUST hosts a group of electronic platforms that facilitates both academic and administrative processes. Moreover, MUST has moved to interactive learning through signing partnerships with highly reputable companies as McGrawHill, Elsevier and EBSCO..

## Message from the University President



The technological developments are rapidly progressing and have impact on all aspects of our lives. The world we are living in might be called the digital society, with internet of everything as driving principle. The speed of change is accelerating and is driven by the exponential growth of computing power.

Within this new global paradigm for economic and technological growth, Misr University for Science and Technology (MUST) strives to become a Fourth Generation University emerging in response to the environmental tensions that are the hallmark of our current era; an era in which universities are seen as central stakeholders capable of supporting societal transformation. MUST has established a strong networking environment that incorporates all academic and administrative aspects. MUST follows a solid educational system that contributes to building an enlightened and creative personality through enhancing innovation and creativity to hone the skills of students, support and develop scientific research, and positively contribute to the educational, economic, and sustainable development of the local communities and the region.

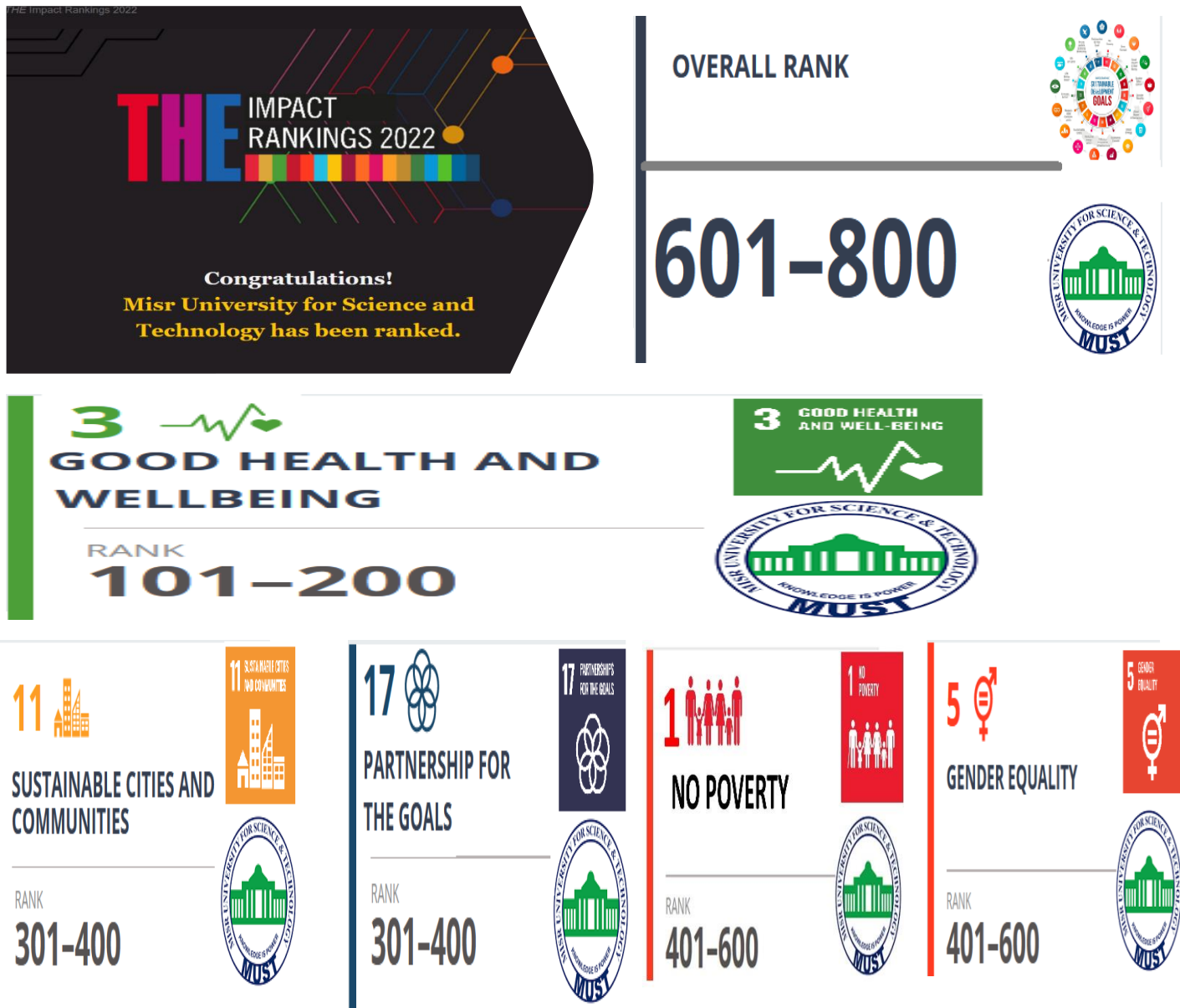






## MUST in the World University Rankings for Sustainability

### THE Impact rankings-2022



For the first time, Misr University for Science and Technology has been ranked in the British Ranking THE-Impact ranking 2022. Misr University for Science and Technology achieved a distinctive ranking and came in the level (601-800) globally in the overall

ranking, and the 17th domestically among the 36 Egyptian universities that participated in the 2022 rankings. Misr University for Science and Technology has reached in the third goal: good health and well-being, the level (101-200) Globally, sharing this level with Ain Shams University to obtain the second position among Egyptian universities. The university obtained the international level (301-400) for The Seventeenth Goal: Partnerships to Achieve the Goals. Only three Egyptian institutions are at this level, notably Ain Shams University, the American University in Cairo, and Misr University of Science and Technology, which places the university sixth among all Egyptian universities included in the 2022 ranking for this goal. In Goal 11: Sustainable Cities and Communities: The University came in the level (301-400) in the world. Misr University for Science and Technology has shared this level with a number of Egyptian universities, including Cairo University and Mansoura University, to obtain the eighth ranking among Egyptian universities. Whereas for the fifth goal: gender equality: The university came at the level (401-600) globally, and 14th among Egyptian universities. MUST is on the same level with a large number of Egyptian universities such as Alexandria University, American University in Cairo, Cairo University, Assiut and others. Finally, the first goal: No poverty: The university came in the level (401-600) globally and the 17th nationally sharing this level with a large number of Egyptian universities such as Al-Azhar University, Assiut, Banha, Beni Suef and others.

## 2022 Sustainability Spotlights

### Education and Research Highlights:

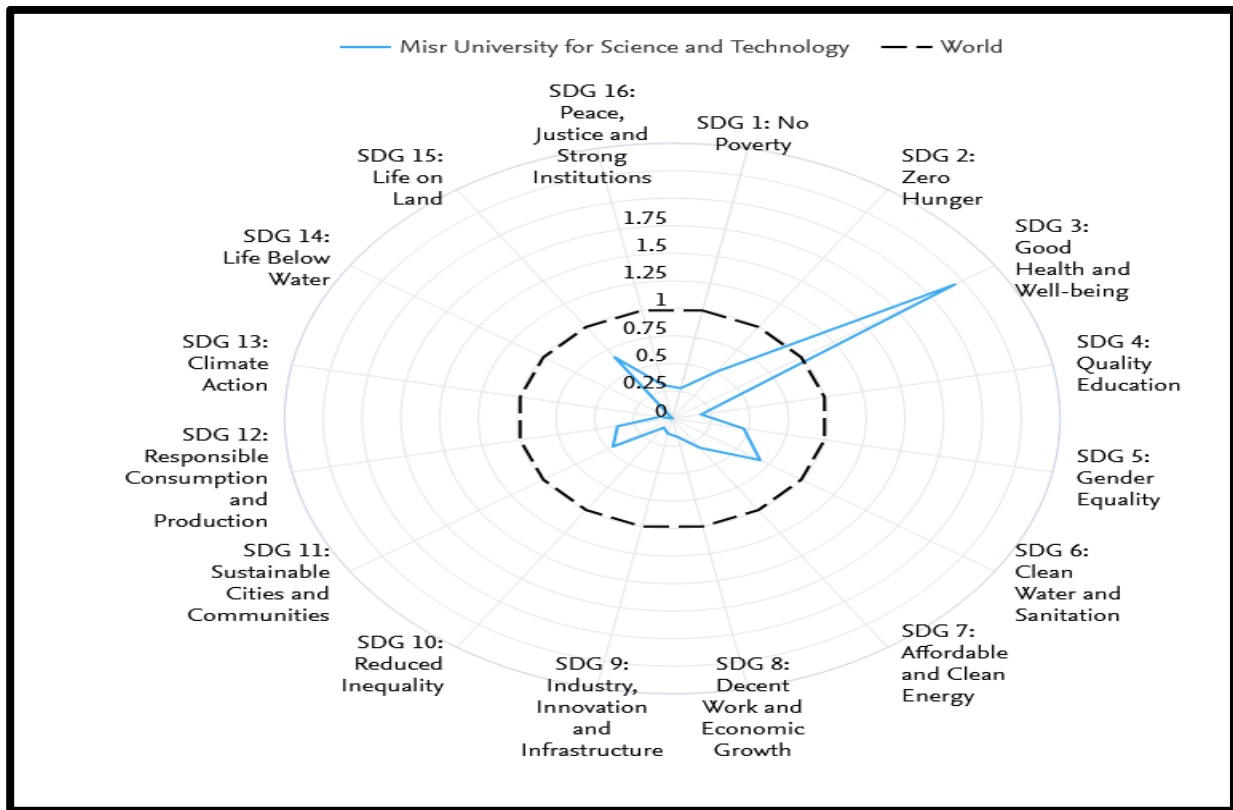
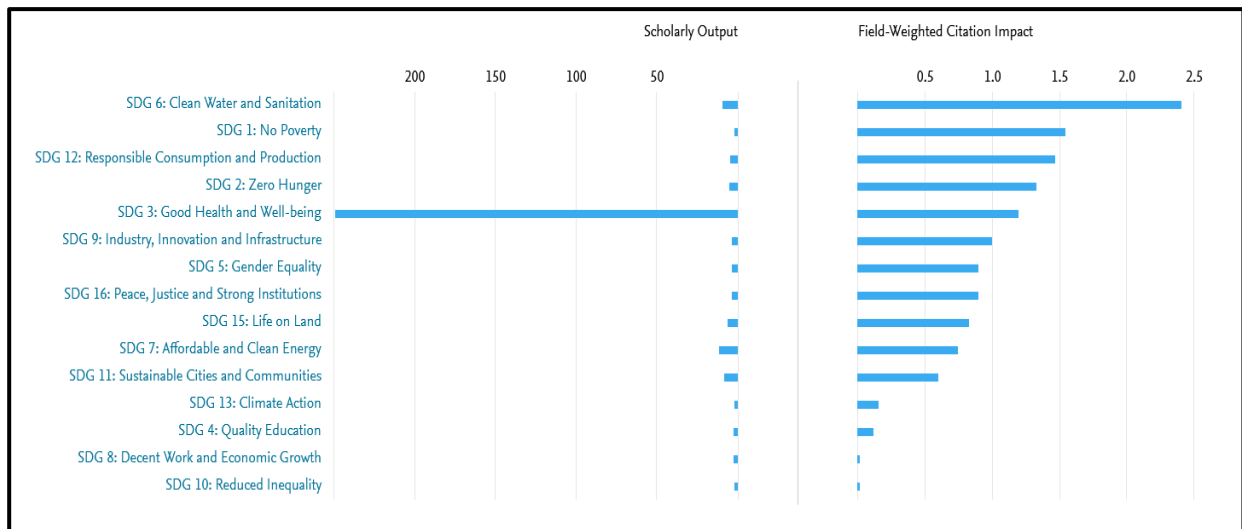
224 Sustainability  
Courses



International Partnership



## MUST Scopus' Publications classified by SDG (2019-2022)



## Social Highlights

Health infrastructures are available and accessible for public

Souad Kafafi Hospital's Statistics-2022:

Clinics	Total Numbers of Patients
Inpatient Clinics	6922
Outpatient Clinics	37477
Consultant Clinics	77068

- ➡ Number of events related to sustainability= 68
- ➡ Number of cultural activities on campus= 5
- ➡ Number of sustainability community services project= 6
- ➡ Number of student organizations related to sustainability= 11

## Environmental Highlights

- ➡ Percentage of energy efficient appliances usage on campus= 86.6%
- ➡ Number of renewable energy resources: 4
- ➡ Total carbon footprint / total campus population= 0.361
- ➡ Recycling program of university waste=> 75% of waste
- ➡ Number of initiatives to decrease private vehicles on campus= 5

The current annual sustainability report highlights the contribution of Misr University for Science and Technology to achieving the UN Sustainable Development Goals (SDGs) and addressing global sustainability issues. The report is divided into the following sustainability categories: setting and infrastructures, influence on education and research, impact on the environment. The information in the current report pertains to the academic year 2021–2022, which runs from September 1, 2021, through August 31, 2022.

## **I- Settings and Infrastructures:**

Misr university for Science and Technology (MUST) is considered a green campus by providing more spaces for greenery and safeguard the environment and providing the community with public access to its facilities.

Misr University for Science and Technology (MUST) has a main campus (MUST 1) located in Al-Mutamayyez district, 6<sup>th</sup> of October City, Giza, Egypt. The percentage of open space area to total area is 73%. The university has a new extension Campus (MUST 2) located at the opposite side of the 26 July axis, located in Al-Mutamayyez district, 6<sup>th</sup> of October City, Giza, Egypt. Finally, The university also has a new branch (MUST 3) which is still under construction and located in Luxor, Upper Egypt.



## Campus Sites



MUST-I



MUST-II



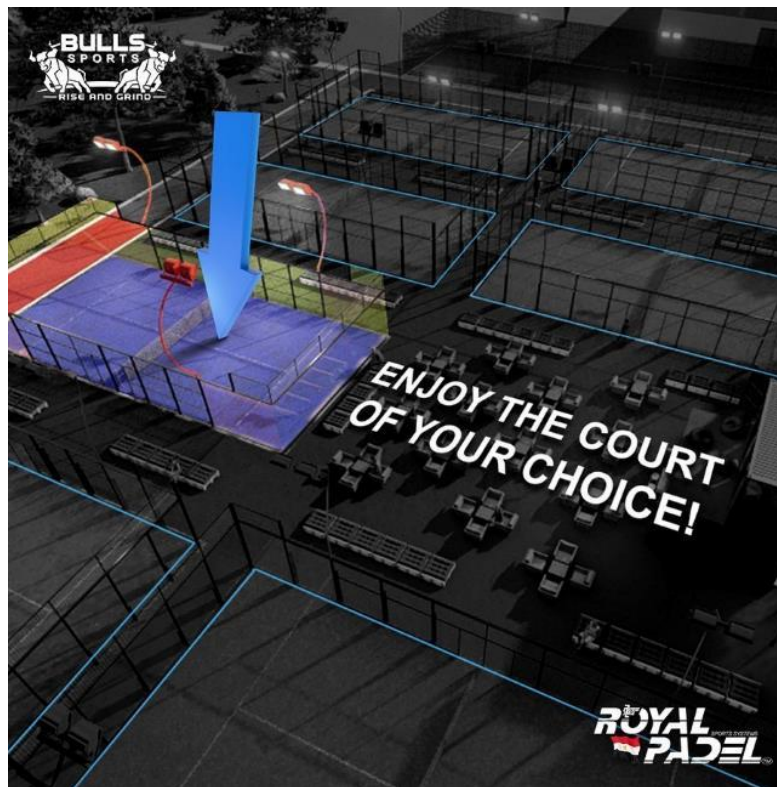
MUST social role extend to providing the community with public access to the majority of its facilities as, Soad Kafafi's hospital, multiple courts, the mosque and its religious as well as social amities, the library and its open area, the Opera House that hosts a lot of cultural and social events as well as the museum. Hence, towards fulfilling its founder's dream, MUST has turned into an educational legacy that attracts students from all over the country and the surrounding region, offering the best facilities for the most reasonable fees and sustaining its role towards the community.

## Public Access Facilities:

### Athletics Facilities:

At the campus, MUST have the country's best athletics facilities. We have squash, tennis, basketball, handball, volleyball, a huge football court and a Gym. Our courts attract students to practice sports and join teams to become professional players. Because of the availability of courts that satisfy various sports and the lack of sport clubs in the area surrounding the university, moreover due to the inability of all people to pay exorbitant membership fees this led the university to take the decision of offering an open access for these courts to the public with symbolic fees.









[https://m.facebook.com/EgyptPadelTour/?locale2=zh\\_CN](https://m.facebook.com/EgyptPadelTour/?locale2=zh_CN)

[https://www.egyptpadeltour.com/event\\_results.php?id=23](https://www.egyptpadeltour.com/event_results.php?id=23)

## Sports Academies:

- MUST University cooperate with many sports academies:



<https://www.instagram.com/noletacademy/>



<https://m.facebook.com/elite.efa/posts/>

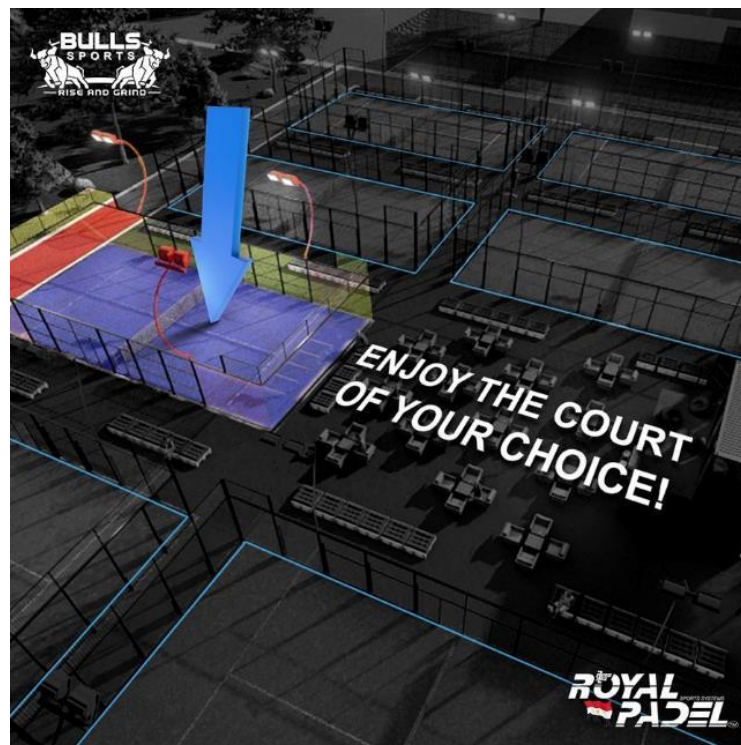


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## Art and Heritage Facilities:

MUST own varieties of art and heritage facilities that are accessible for public like MUST Opera House and Center of Editing Arabic Heritage, Mosque, and Central Library,

### MUST Opera House

Established in 2001 as the first private Opera House in Egypt, MUST Opera House provides various services to the university as well as the community around. With its outstanding concert hall with 1000 seating chairs, the Opera House hosts international and national shows and festivals. Furthermore, the graduation ceremonies of the university colleges are held annually to celebrate the students' achievements. Conferences that host celebrities from all over Egypt are also held in MUST Opera House.

Moreover, because of MUST's belief in its role towards the community, The Talent Development at MUST prepares today's generations to become tomorrow's booming talents offering a variety of activity courses that include oriental singing, piano, violin, oil painting and others.





## Center of Editing Arabic heritage.

MUST Center of Editing Arabic heritage was established in 2010 as a service provided by the university to heritage, as a communal obligation for preserving it, raising awareness of its value, and highlighting its cornerstone achievements. It offers authorship, translation and publication of Arab heritage texts. It is concerned with preserving the Arab heritage as a way towards a more inclusive future, reviving the national identity and protecting it from external distortion, spreading awareness of the Arabic manuscript heritage among the younger generations, and highlighting the greatness of Islamic figures as Ibn Sina, Al Razi, Ibn Al Bitar and others shedding light on the role they played in the development of their communities.

In the green area surrounding the university mosque, MUST Center of Editing Arabic heritage hosts annually the celebration of the birth of Prophet Mohamed receiving guests from the surrounding community who attend to participate in the celebrations as well as to take part in the Holy Quran's context which takes place at the same event each year. Additionally, MUST Center of Editing Arabic heritage participates consistently in the Egyptian International book fair with recent publications and translations.









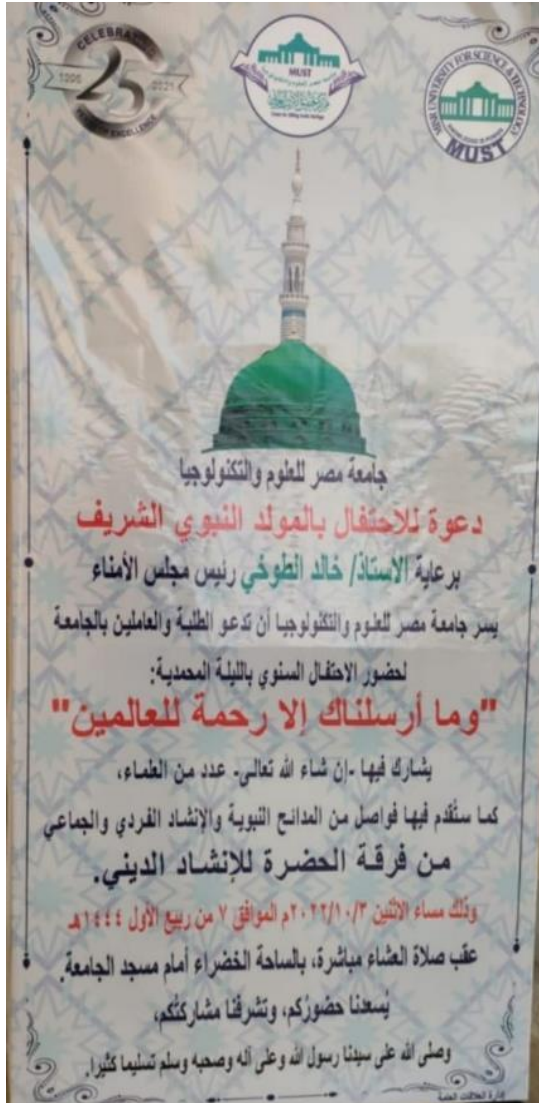
## The Mosque

Besides all activities and facilities offered in MUST, the importance of religion and its role in shaping the human life is highly recognized. Built with a highly sophisticated architectural design, the university mosque serves both its students and staff members as well as the residents of 6<sup>th</sup> of October district. The mosque provides its visitors with a perfect comforting atmosphere together with regular religious lessons and Quran sessions. It is also a major spot that people head to each Friday for prayers that are held inside the mosque as well as in the green area around it. In Ramadan, the university mosque is considered as an attractive place for religious rituals and prayers.





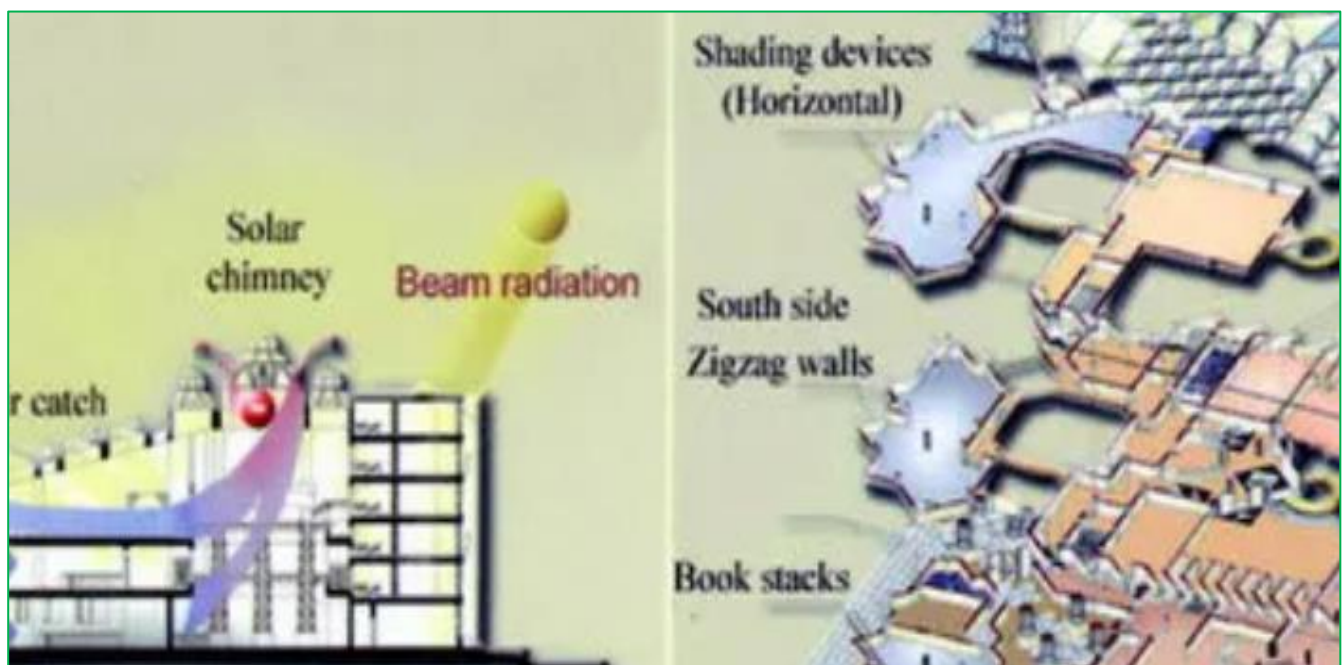




## MUST Central Library

With its unique and distinctive architectural design and up-to-date facilities, MUST central library serve the academic community of faculty members, researchers, and students. MUST library also serves residents of the 6th of October city and researchers from all around Egypt. Students specializing in library science and information technology can find excellent training possibilities at the library.











## Education Facilities for Public

**MUST test center** is considered the only center in Egypt where any student can take The Pearson Test of English Academic or PTE Academic to evaluate his English level. The PTE Academic, is a computer-based English language test it focuses on everyday English used in the academic environment. In addition to the PTE Academic, the center offers other tests like the Versant English Placement Test which is used to evaluate the level of English for freshman students who are enrolling in the university.







## Health Facilities

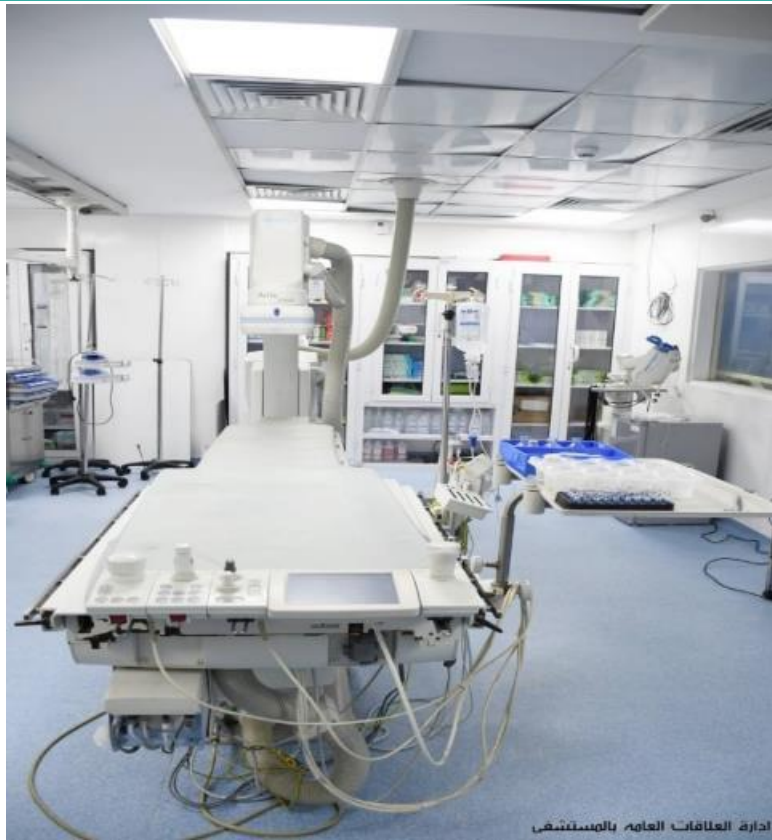
Within the framework of commitment to social responsibility, Misr University for Science and Technology puts all of its health facilities such as , Souad Kafafi University Hospital, Isolation Hospital, 3 mobiles hospitals and Four equipped ambulance cars in many community and humanitarian activities aiming primarily to provide free medical services to the unable within the plan to implement the hospital's mission in healing and alleviating the pain of the masses of citizens in various Egyptian governorates. These healthy facilities are medical edifice which embraces a selection of the most qualified doctors in various specialties and medical fields to provide distinguished therapeutic services as it provides the latest high quality medical and healthcare services according to international standards. These services are directed to meet the needs of all patients as the hospital was established according to advanced standards of medical designs and equipment.

Medical campaigns are professionally organized by the hospital in accordance with the highest quality standards in the provision of health services and patient care especially in semi-urban and densely overpopulated areas and remote governorates in order to contribute effectively to the consolidation of the culture of social responsibility as well as early detection, diagnosis, examinations and surgical operations conducted daily free of charge for the unable in all medical specialties.













## MUST Medical Convoys







**Four equipped ambulance cars**

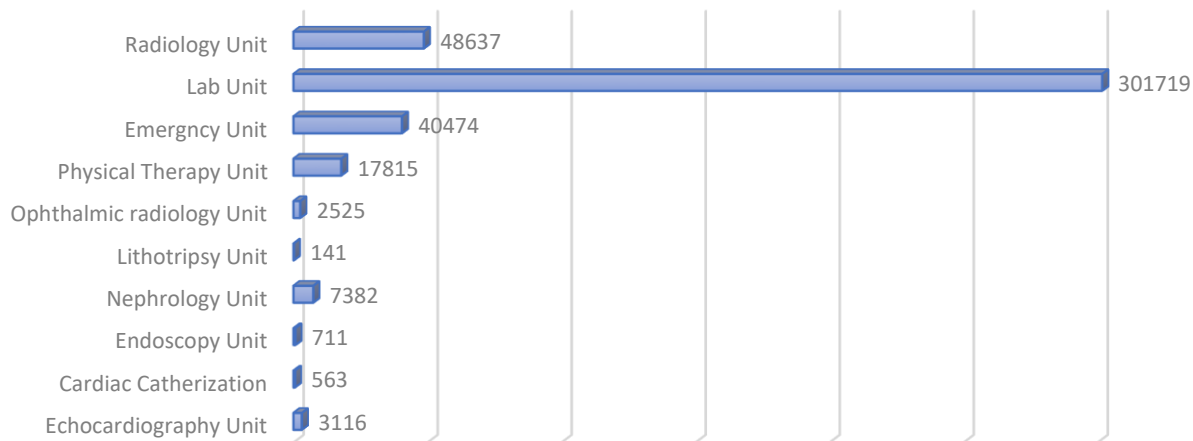


**Isolation Hospital**

## Annual Statistical Statement of Souad Kafafi Hospital's Specialized Units

Unit	Echocardiography Unit	Cardiac Catheterization	Endoscopy Unit	Nephrology Unit	Lithotripsy Unit	Ophthalmic radiology Unit	Physical Therapy Unit	Emergency Unit	Lab Unit	Radiology Unit
Total	3116	563	711	7382	141	2525	17815	40474	301719	48637

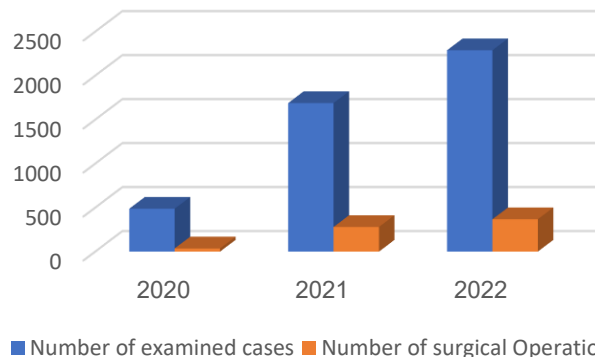
2022 Statistics of Souad Kafafi Hospital's Specialized Units



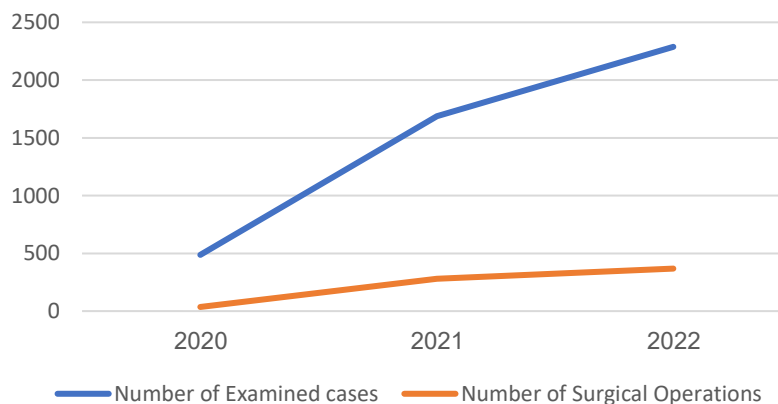
## Medical Convoys Statistics-2022:

Year	Number of Examined cases	Number of Surgical Operations
2020	487	36
2021	1688	280
2022	2288	368

Medical Convoys Statistics



Medical Convoys Statistics



## II- Education and Research

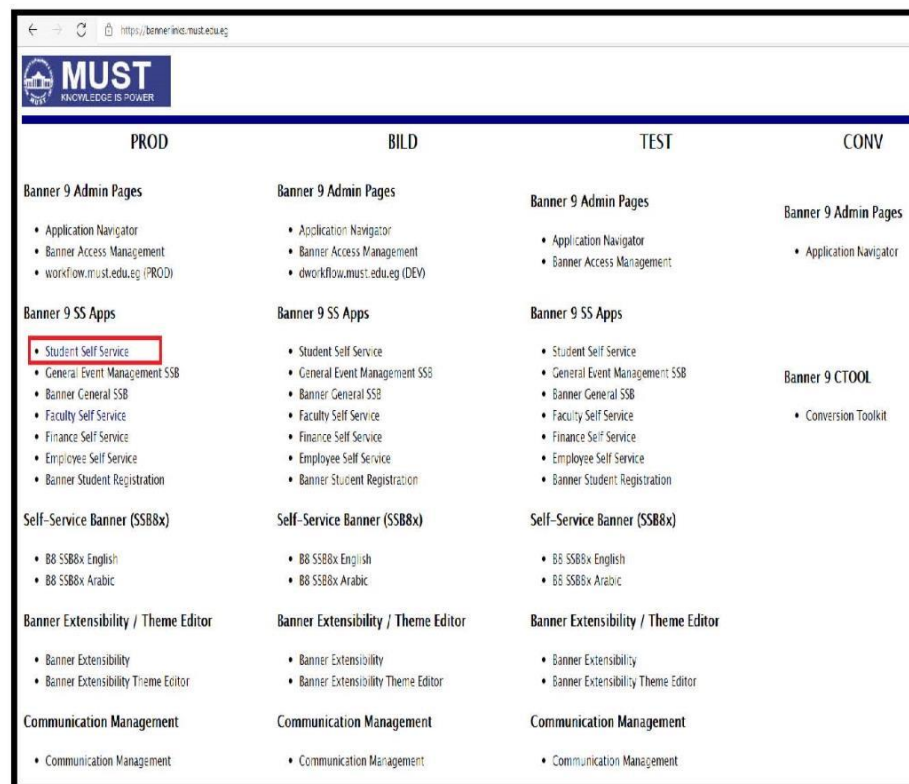
The E-Learning Center at Misr University of Science and Technology has been established since 2015 to help faculty members design effective and diverse courses by adopting best technical practices in the learning and teaching process. The E-Learning Center provides leadership and support for educational technology at Misr University by working in partnership with academic and administrative units to meet the needs of the leading educational institution in education. The E-Learning Center is the main source of educational technology and its services at the university level represented in supporting students, and university staff. Misr University for Science and Technology has relied on the system of international books and international review in the teaching process at the university and abolished the paper book at the university with the aim to deal with the global



system in teaching methods based on the interactive book as the university has become a member in the best global e-book platforms; McGraw Hill, Elsevier and EBSCO.



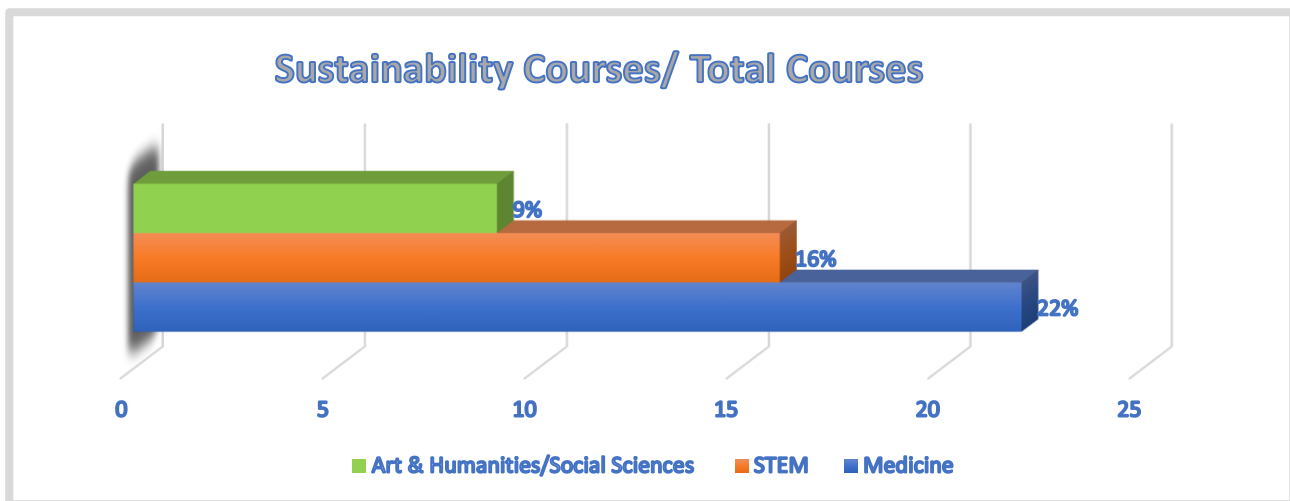
The Learning Management System



The Banner Learning Management System

MUST is concentrating on integrating environmental and sustainability education within the university's teaching and learning process. The university offered 14% of all available courses in sustainability during the academic year 2021–2022. The subject field of medicine and clinical health had the highest proportion of sustainability courses (22%), STEM had the next-highest (16%), and art and humanities had the lowest (9%) rate.

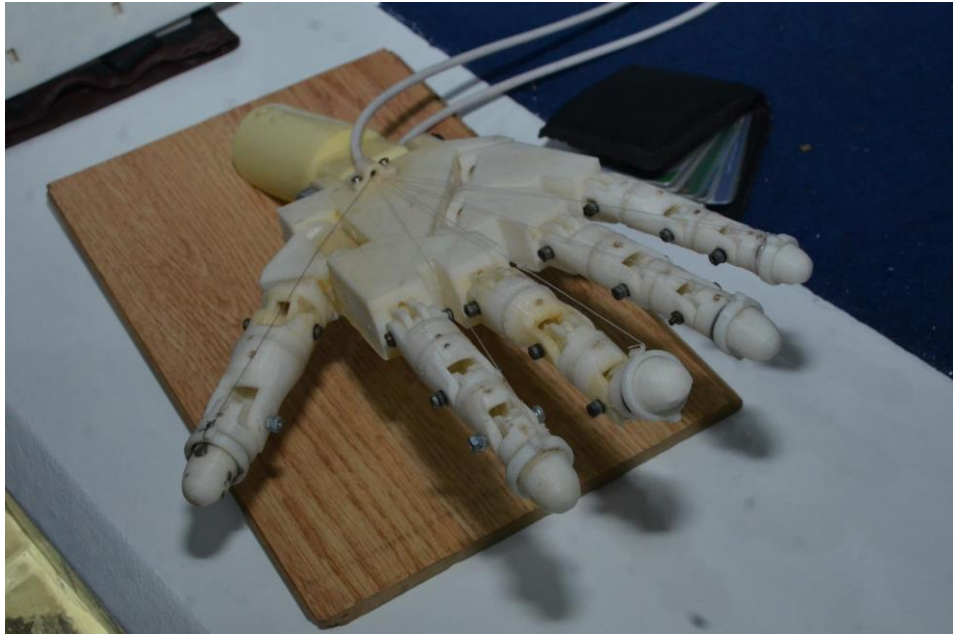
MUST is equipped with research centers for supporting sustainability development. The center for Innovation and entrepreneurship (IE HUB) helps academics, researchers, and entrepreneurs to pursue innovative ideas and solutions, develop prototypes and advances to commercialization. The IE Hub serves the university vision for developing innovative and creative graduates capable of bridging challenges with creative approaches. In addition, the university provides communal and environmental services as well as outstanding applied research that can support economic and social transformations and achieve sustainable



development.







**Dr. Suad Kafafi's Annual Competition for Innovation, Creativity and Entrepreneurship:**

MUST- Artificial Intelligence Technology Center (AITC) aims at unleashing the potential of artificial intelligence in education, research and community services.

## 4 WA3Y

### Executive Summary



#### THE WINNING INNOVATIVE RESEARCH TO FIGHT CORONA FROM THE ACADEMY OF SCIENTIFIC RESEARCH AND TECHNOLOGY MAY 2020

##### AWARENESS

This stage is intended to guide the Egyptian nation on the awareness about the novel virus covid-19 , including its symptoms , the ways to put face mask , the ways to wash hands and social distancing

##### DIAGNOSIS

This stage is intended to give an initial indication about patient's chest Xray whether its most likely to have probable signs of covid-19 or not, where the patient can go for more advanced techniques to be diagnosed

##### PREDICTION

This stage is intended to predict the total number of recorded cases that will be announced by the ministry of health , where this stage can give a vision about the future forecasting statistics and indicate the country risk /safety trending curve to provide the decision makers

- USING THIS APPLICATION, YOU CAN EASILY REACH THE NEAREST HOSPITAL THAT ACCEPTS COVID-19
- CASES IN EGYPT, AND NAVIGATE TO THEM, AND THROUGH MAPS YOU CAN KNOW THE HOSPITALS AROUND YOU



ARTIFICIAL INTELLIGENCE TECHNOLOGY CENTER

## VENDING MACHINE



### Intelligent vending machine using Internet of Things

Track the number of items in it and calculate the number of times an item was selected and purchased.

Measurement of temperature and humidity, indoor air quality and energy consumption

Best selling items and revenue.

With the help of AI/Machine Learning and data collected by the centra server, better service and marketing can be offered to the customers

- INDEPENDENT BATTERY
- SHOCK DETECTING SENSOR
- GPS & ACCELEROMETER
- Credit Cards
- Mobile NFC QR-Code



### جامعة مصر للعلوم والتكنولوجيا تحتفل بإطلاق مشروع "النلاجة الذكية" الأولى من نوعها فى العالم

إنجاز جديد يضاف لإنجازات جامعة مصر للعلوم والتكنولوجيا فى المجالات  
العلمية المختلفة خاصة فى الاستخدامات المتعلقة بالذكاء الاصطناعى والذي

📅 اليوم السابع / Jun 8, 2021



ARTIFICIAL INTELLIGENCE TECHNOLOGY CENTER



## SANITIZING ROBOT

### Project features

1. Project can be controlled from distant  
Project can spray on demand not continuous spraying
2. Heavy duty
3. Small dimensions (55x55x80) cm that can fit at most of places
4. Availability  
battery full charge can operate the robot for 80 hours



ARTIFICIAL INTELLIGENCE TECHNOLOGY CENTER

## 10 STUDENT EXCHANGE PROGRAM

### Executive Summary

**Enrolling in a foreign exchange program is an amazing experience. Many students don't travel abroad until later, so you'll get an educational head start. Our student exchange programs vary in length and subject matter.**

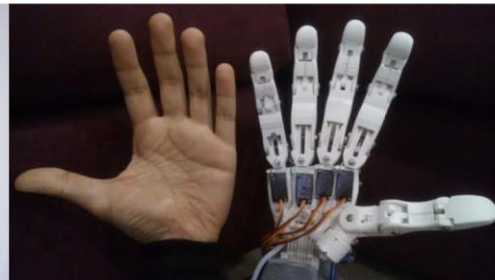
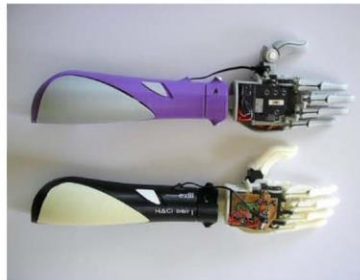
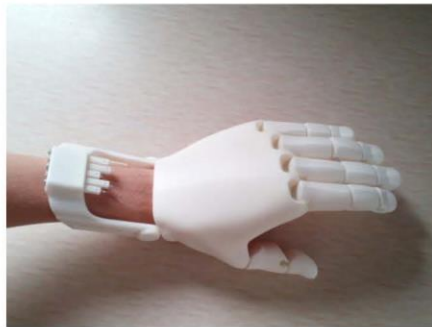
STUDENT EXCHANGE PROGRAM COLLEGE OF INFORMATION TECHNOLOGY



ARTIFICIAL INTELLIGENCE TECHNOLOGY CENTER

## PROTHETIC HAND

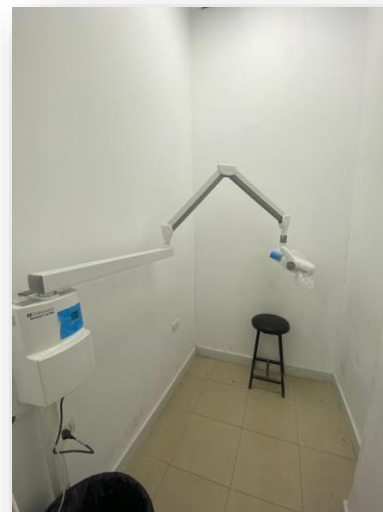
### FUNCTIONAL PROSTHETICS



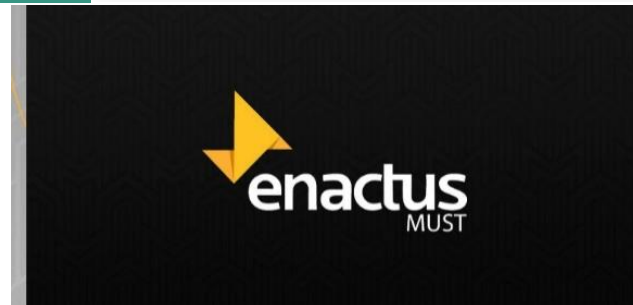
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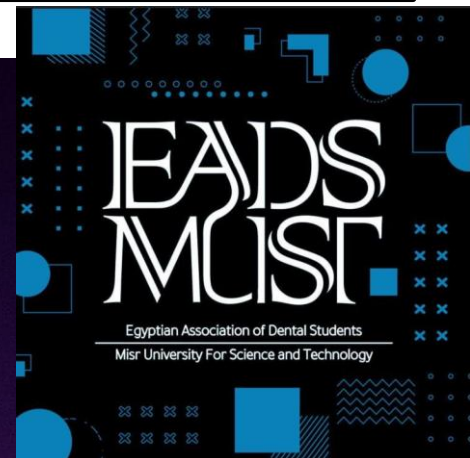


MUST Dental implant research center That provides fellowship program in implanting to prepare a distinguished dentist scientifically and professionally in the field of implantology, to meet the requirements of the labor market locally and regionally, through the provision of high level therapeutic services that satisfy the patients' needs and community requirements, within the framework of societal and ethical values.



Misr University for Science and Technology has 11 Student Organizations dedicated to sustainability in 2022. These organizations are committed to encouraging students to adopt a sustainable mentality and apply sustainable development goals in both their personal lives and professional endeavors. Their objectives are to increase environmental consciousness through awareness campaign, with the integration of entrepreneurship and sustainability development to prepare an entrepreneurship leaders. Two new mental organization NADER and Khatwaa are launched in the academic year 2022 under the supervision of the psychological guidance unit of the university. Both organization were established to help university and non-university students, to build a more cohesive sustainable society that can face mental illnesses by increasing the psychological awareness among students to deal with any psychological problem.





Misr University for Science and Technology has been very influential in raising the awareness about sustainability for students, faculty, staff and community to encourage all to adopt a greener lifestyle. In 2022 Misr University for Science and Technology organized many sustainability-related events, cultural activities on campus and community services projects.





Marathon Day



SDG Awareness



Celebrating the Challenge Day Campaign for handicapped and mentally restarted patients all over Egypt.









## Festival of 10th Arabic Manuscripts 31-3-2022

The annual ceremony of the Arabic Manuscript Day, under the slogan "Our Manuscript Legacy in the Time of Globalization", were launched at the Misr University for Science and Technology Opera. This annual occasion aims to enhance the awareness of Arab generations of the importance of intellectual accumulation in building their civilizational affiliation, adding that our manuscript heritage faces many challenges at all levels of preservation, collection and dissemination. researchers so far.



## Ceremony (Orphan's Day)

The orphan day with held on April 1/ 2022 in conjunction with the Vice President for Community Service and Environmental Development, including many interactive and recreational activities with the orphan children. These activities were including show and awareness raising through role playing regarding mobile addiction and its prevention.



The annual recruitment forum 2022

## Support (You Can) Campaign

Supporting the “You Can” initiative, which is organized by the Smile Maker team to introduce children to small projects and organize some recreational activities for them such as drawing and coloring.







## Exhibition of handicrafts and small industries

Encouraging small projects by displaying various handicrafts and artworks such as decoration, paintings and woodwork.



MUST hosted national sustainability conferences; **Digital Transformation and Its Impact on Sustainable Development** and The first university forum for green economy and



sustainable development. It was the first event of its kind in Egypt, the Middle East and Africa with the aim of linking the academic community with industry and contemporary issues, with the presence and participation of a constellation of the League of Arab States, the World Green Economy Council, the New and Renewable Energy Authority, the Global Fund for Development and Planning, the Federation of Egyptian Industries, the Egyptian Federation of Investors and the Energy Federation and sustainable development, the Ministry of Environment, public figures, experts and university professors.



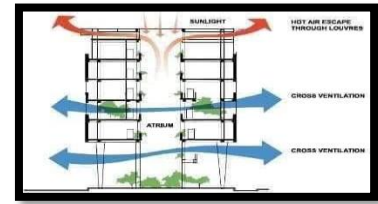
**Awareness of Women's role in environmental reform**  
to limit the effect of climate change



**Medical Convoy**







**Courtyards (Tech valley)**



**Natural gas chiller**



**Solar panels and chillers ( Tech Valley)**

**Green Building Implementation Campus- MUST 2 (Tech Valley)**



## Waste Management

- Misr University for Science and Technology transfers treats and recycles various wastes with the help of a local recycling companies. The University developed a single-streamed recycling system, making it easy for students and faculty to decide what they may and cannot recycle. Furthermore, this program allows all types of recyclables (plastic, glass, food, and cans) to be placed in the same container, simplifying the user's life. Also, the MUST University maintenance department recycles wood and metal waste to reduce carbon emissions in the environment and optimize its utility.
- Misr University for Science and Technology decreases the usage of plastic bags by posting signs that say, "No more plastic bags" and "No plastic bags allowed." In addition, the university owns a paper shredder machine to help paper industries with recycling.
- Misr University for Science and Technology employs the Banner human system to promote paperless systems and reduce paper in the workplace daily. It can eliminate a significant amount of paper use, allowing the university to minimize CO<sub>2</sub> emissions and save the environment.
- The only structures at MUST University that generate organic waste are the food court and arboretum, which manage this type of waste completely independently. The food court manages organic waste through contracts with a specialist company collects organic trash and transports it to an authorized waste treatment plant that processes the material via anaerobic digestion. Also, the University has a trees wood and leaves shredder machine which converts them into small pieces, then the university utilizes a small recycling system by putting shredded wood and leaf materials under plastic sheets to convert them to Peat moss.
- E-waste initiative to recycle and reduce electronic waste.





Wood recycling process



**Metal recycling process**



**Plastic reduction initiative**





Organic waste

## E-Waste Initiative



## Example of Recycling Program for University Waste

### Clean Water and Sanitation

- Six of October City Authority is running the plant station including the implementation of (two sub-distribution wells - 20 water troughs - 58 sand filters - filter pump housings - generator housings - filter wash pump housings - filtered water tanks), as well as the electromechanical supplies and civil works necessary for operation and maintenance of buildings, workshops, maintenance and more.
- Misr University for Science and Technology uses a Natural Gas-Fired Chiller to provide hot or cold air to the entire campus. Water in the chillers is treated with environmentally friendly materials (3D TRASAR™). A sustainable water treatment system is critical to the reliability and profitability of any facility. A natural gas-fired chiller transforms 80% of the

energy from natural gas into power. This is far more efficient than an electrical chiller, which uses less than 45% of the energy from natural gas used at a power station. In other words, a natural gas-fired chiller will only lose 20% of the energy from natural gas, whereas an electrical chiller will lose more than 55% of the energy from natural gas. As a result, a natural gas-fired chiller uses natural resources far more efficiently than an electrical chiller. The utilization of natural gas reduces the carbon footprint.

- Artificial and Intelligent Technology Center innovate a new system to conserve water which could be implemented in the university. Also, New campuses MUST 2 (Tech Valley) and MUST 3 were designed to be environmentally friendly buildings. New campuses MUST 2 (Tech Valley), the outdoors with water fountains is designed to be economically friendly and water efficient. Cool the courtyards' microclimate by using artificial fountains and lakes with an economical design that are fed with the least amount of water and filters.

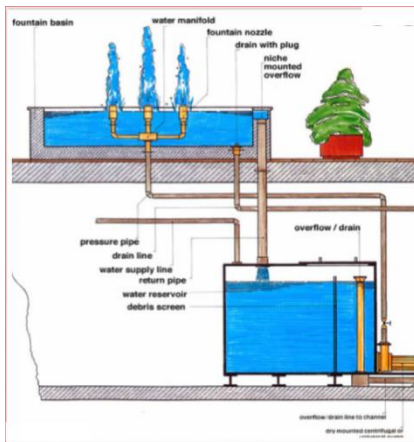
- Misr University for Science and Technology has 15 water coolers and heater dispensers with filters to provide highly pure water for all users in the campus.

- A decent life initiative to rationalize water consumption "A drop of water equals a life" is a decent life initiative to rationalize water consumption.

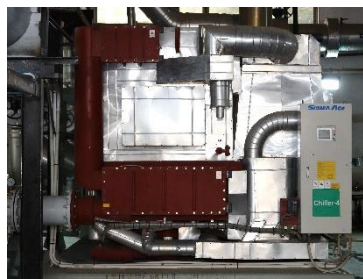
- Smart Green House prototype to decrease the usage of water and monitor the plant conditions.



**Green roofing & gray water recycling**



**Water fountains for air cooling (Tech Valley)**



**Natural gas chiller**





**Conserving water using artificial intelligent system prototype.**

**Smart greenhouse**