



# **ZEWAIL CITY Annual Report**





# Egyptian Institution with International Standards









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# **Zewail City** Achievements

2022



### Introduction

This is the 2022 Annual Report for Zewail City of Science and Technology and Innovation (ZC); it aims to highlight the new partnerships, updates on campus, new units, and achievements of the faculty members and students.

#1 ABET

#3

#4

Academic Building

#5

Launching of Continuous Improvement & Accreditation Unit Feb 2022

#6

**International** Competitions

#2

**Total Students** Receiving Scholarships & Financial Aid

82%

St

**Among** 

the Egyptian Universities

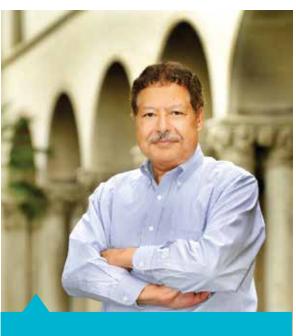
Among Universities in the Arab Region

#8

**Partnerships** 

## The Founder Message

The City has managed to attract world class scientists to join in this vision and to help Egypt become a major player in science and technology on the regional and global levels. Currently, research in fundamental physics, biomedicine, solar energy, nanotechnology and other fields is underway. We accepted the first and second cohorts of students to the University of Science and Technology; in the first year, 300 students were admitted out of 6000 applicants, a 5% rate that is comparable to those of Harvard and Yale! We have also appointed a professional team of academic and administrative. Both the administrative building in Garden City and the campus on the 6th of October City, at the outskirts of Cairo, are now fully operational.



Dr. Ahmed Zewail Founder of Zewail City of Science and Technology

My commitment to support the project remains unwavered, and I continue to lead its Board of Governance, which includes five Nobel laureates and distinguished national and international figures. Despite all of these achievements, we still have encounter challenges, but numerous opportunities are expected to rise and propel the national productivity into the developed-world level. With the commitment of Egyptians to this National Project, together with the cooperation with other research and educational institutions in the country and abroad, I am confident that we will succeed and prove the City's motto "Egypt Can" during this historic epoch of Egypt and Arab Awakening.

## The Chairman's Message

ZC serves our society by preparing young generations capable of thinking critically, creatively and mastering basic sciences. It is through strong interactions and harmony between the University of Science and Technology, the Research Institutes, and the Technology Valley that our mission can be ultimately fulfilled. Throughout the years, ZC steps towards realizing the dream of Dr. Ahmed Zewail to become a beacon of knowledge within Egypt.

This year of 2022 brings some special occasions to Zewail City as it marks the completion and movement to the academic building, receiving the international accreditation of our programs, along with the prestigious international ranking of Zewail City, all of which reflect the remarkable efforts by our researchers, faculty, staff, and students.



Dr. Ayman Ashour
Minister of Higher Education
and Scientific Research

# The Executive President's Message

This year, Zewail City (ZC) made significant progress and great achievements in teaching, learning and research. With the help of dedicated ZC faculty, researchers, staff and students, we achieved remarkable progress this year highlighted in many aspects.

Proudly, we became the first Egyptian university to obtain international accreditation from the U.S accreditation board ABET. Four programs offered by the University of Science and Technology (UST) have been accredited by ABET, namely Biomedical Science, Communication and Information Engineering, Environmental Engineering and Nanotechnology and



Dr. Mahmoud Abdrabou Acting as Executive President

Nanoelectronics Engineering. ABET accreditation assures that UST programs meet the international standards, pave the way to innovation and emerging technology and fulfill public needs.

Another notable achievement marked towards the end of November held a special recognition for all ZC family members as UST was ranked the 1st among the Egyptian Universities and the 10th among the Arab world Universities for the second time after securing this place last year as well, according to Times Higher Education (THE).

This year also witnessed the opening of the Academic building, Auditorium and ZC mosque.

Additionally, the new school of computational science and Artificial Intelligence (CSAI) received its first batch of more than 290 students. To celebrate the inauguration of our administrative building, ZC hosted the graduation ceremony for the first time in its Auditorium in 2022.

Our professional scientists and faculty secured over 34 Million Egyptian pounds as research grants to fund their research within ZC.

The year 2022 has also witnessed how ZC researchers have published scientific journals, conference papers, books and book chapters, all amounting to 229 in number.

## **Board of Trustees (BOT)**



H.E. Dr. Mohamed Ayman Ashour
Chairman
Minister
Higher Education and Scientific Research



Sir Magdi Yacoub
President Emeritus
California Institute of Technology (Caltech)
Former President, King Abdullah University
of Science &Technology (KAUST)



Major General Prof. Ismail Kamal Commandant Military Technical College



**Dr. Hesham Sadek**Certified Senior International Consultant
European Union



**Dr. Mohamed Lotayef**Secretary-General
Supreme Council of Universities



**Dr. Mahmoud Sakr**Member of Zewail City Board of Trustees
President, Academy of Scientific
Research & Technology (ASRT)



**Dr. Amr Shaarawi**Professor of Physics
Former Provost, The American University in Cairo (AUC)



**Dr. Rashad Barsoum** Professor of Medicine Cairo University



Dr. Hani Azer International Civil Engineer Advisor to the President for Engineering Projects



**Dr. Jean-Lou Chameau President Emeritus** California Institute of Technology (Caltech) Former President, King Abdullah University of Science & Technology (KAUST)



**Major General Mohamed Mosry Minister** State for Military Production



Mr. Hisham Okasha Chairman National Bank of Egypt



**Eng. Samih Sawiris** Chairman Orascom Development Holding



Mr. Moataz Al-Alfi **Chairman and CEO** Egypt Kuwait Holding Co., SAE



**Mr. Mohamed Al Abbar** Founder and Chairman **Emaar Properties** United Arab Emirates

## **Board of Directors (BOD)**



Dr. Mahmoud Abdrabou
Director
Acting as Executive President



**Dr. Mohamed ElKoosy**CEO
Egyptian Space Agency



Dr. Hisham Haddara Founder and CEO Si-Ware Systems



**Dr. Mohamed Labib**Professor, Faculty of Science
Tanta University



**Dr. Mahmoud Sakr**Member of Zewail City Board of Trustees
President, Academy of Scientific
Research and Technology (ASRT)



**Dr. Moustafa Samir Moussa**Director of Valley of Science & Technology



**Dr. Ayman El-Shibiny**Director General for Research



**Dr. Tarek Ibrahim**Dean of Academic Affairs

### **Our History**

# 11 Years of Innovation and More



Zewail City of Science, Technology, and Innovation is a nonprofit, independent institution of learning, research and innovation. The establishment of the City was proposed in 1999, and its cornerstone was laid on January 1, 2000. After numerous challenges resulting in many delays, the project was revived by the Egyptian Cabinet's decree on May 11, 2011 following the January 25 Revolution. The Cabinet proclaimed it a National Project for Scientific Renaissance and named it ZC. On December 20, 2012, a special law for ZC was granted, allowing students to enroll at its university and Egypt to begin a new era of modern development in scientific research and technological production. In 2014, former Acting Egyptian President Adly Mansour issued a presidential decree granting the City a new campus on a 200-acre premises in October Gardens, 6th of October City. ZC has successfully moved to the new campus at Ahmed Zewail Road, October Gardens, 6th of October City. Following this, President Abdel Fattah Al-Sisi appointed the Engineering Authority of the Armed Forces to build the new campus. Construction of the new campus is proceeding at a steady pace, and upon completion, the inauguration of this National Project will be honored by the presence of the Egyptian President and the City's Supreme Advisory Board members.

#### **Vision**

Zewail City of Science, Technology and Innovation aims to achieve a transformative impact on society by improving education to world-class standards and boosting innovation in research to lead the scientific development in Egypt.

Zewail City is the beacon of knowledge and innovation that will revive the leading role of Egypt in the whole region towards a prosperous future.

#### **Mission**

Zewail City of Science, Technology, and Innovation with its affiliated entities

The University of Science and Technology,

The Research Institutes

The Valley of Science and Technology

is established to spark a scientific renaissance in Egypt and enrich society with the latest technologies that will address all the strategic challenges in the Egyptian society

## The City's Affiliated Entities







The University of Science and Technology was established to prepare a new generation of scientists and entrepreneurs, a generation capable of thinking critically and creatively, mastering basic sciences and knowledgeable about the cutting edge interdisciplinary fields of basic and applied sciences and engineering.

The Research Institutes, by depending on world-class science, address strategic priorities and inherent problems relevant to the country; examples include treatments for epidemic and infectious diseases such as diabetes and Hepatitis C in Egypt. Research is currently underway to find alternative sources of energy including solar energy, an abundant source in Egypt.

The original research developed in the City is, consequently, transferred to industry through the third entity of the City, namely the Valley of Science and Technology. It will become the leading hub for high-tech innovation and development by attracting international corporations as well as incubating national startups and spin offs.

## **Rankings and Accreditation**

# ABET Accreditation International Accreditation



Applied and Natural Science Accreditation Commission



Engineering Accreditation Commission









Four of the Bachelor of Science degree programs offered by the UST in Zewail City have been accredited by ABET, the global accreditor of college and university programs in applied and natural science, computing, and engineering technology. The UST accredited programs are the Biomedical Sciences Program, the Communications and Information Engineering Program, the Environmental Engineering Program, and the Nanotechnology and Nanoelectronics Engineering Program. Obtaining ABET accreditation for these programs is a remarkable achievement for the UST as it is the first Egyptian public university to obtain this international accreditation from the US accreditation board ABET.

### **Times Higher Education Ranking**



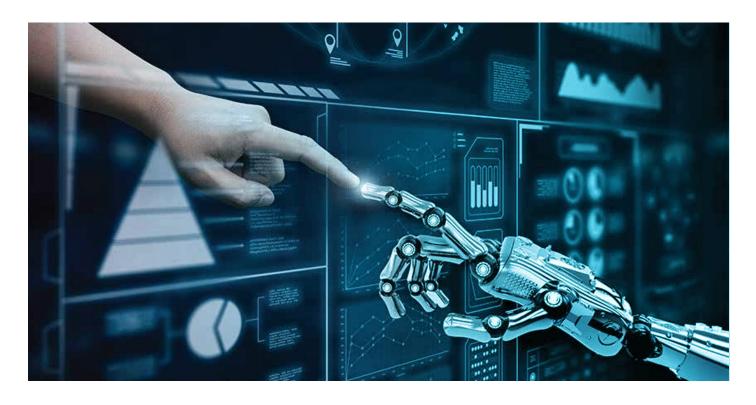
### For the Second Consecutive Year

Zewail City has been ranked in the inaugural 2022 Times Higher Education Arab University Rankings



During 2022, Times Higher Education has ranked ZC as the first among Egyptian universities and the tenth among the universities in the Arab world for the second year successively. ZC's advanced rank is due to the exceptional scientific research output performed by the City's professional scientists, a fact represented in the number of high-quality international publications and the citations of the City's work in the international arena. This remarkable achievement was the result of hard work and dedication of the City's faculty members, research scientists, students, and administrative staff who all fostered a high team spirit to bring the dream of the founder Dr. Ahmed Zewail to reality.

# The School of Computational Sciences & Artificial Intelligence (CSAI)



The School of Computational Sciences and Artificial Intelligence (CSAI) aims to offer a unique contribution to computational sciences education in Egypt. The integration of analytics as a core competency throughout the study at this school will enhance the students' required skills in the field, especially that analytics and data mining are transforming the tools of the trade for most academic and industrial fields of practice. Students at this school will master all the aspects of these tools and utilize them extensively in their studies.

### CSAI currently offers the following three programs:

Software Development

Data Science and Artificial Intelligence
Information Technology

#### **Software Development**

Software Development (SWD) is a program where a core body of knowledge in application development, gaming and computer graphics, human-computer interaction, and related subjects are integrated to develop software applications that help the enterprise and non-enterprise end users perform their tasks efficiently.

#### **Data Science and Artificial Intelligence**

Data Science and Artificial Intelligence (DSAI) is an interdisciplinary program where statistics, big data analytics, artificial intelligence techniques, and related subjects are used to analyze real-world data. It provides the business with the necessary tools to understand the past and the current situation to make an informed decision and predict future scenarios.

#### **Information Technology**

The Information Technology (IT) program instills its students' skills with the concepts, skills, and applications necessary to design and operate information and communication infrastructure platforms that optimize human performance and produce positive societal change.

### **New Units**



### Continuous Improvement and Accreditation Unit



### Mission

At Zewail City, all University of Science and Technology (UST) educational programs are committed to continuously improve their performance. The mission of the Continuous Improvement and Accreditation Unit (CIAU) is to work on the continuous improvement of the necessary policies and regulations to achieve and maintain national and international accreditation while following up on the implementation of policies and regulations within the academic programs to ensure fulfillment of accreditation requirements and the quality and efficiency of the education process.

#### Structure

CIAU includes the following three sub-units:

- Learning Assessment and Accreditation Office (LAAO)
- Teaching Effectiveness Office (TEO)
- Learning Technologies Services (LTS)

### **Partnerships**

### **Nuclear Materials Authority**



A cooperation protocol between ZC and Nuclear Materials Authority (NMA) has been signed by ZC's Acting Executive President Prof. Mahmoud Abdrabou and NMA Chairman Prof. Hamed Ibrahim. The protocol aims to build a framework for cooperation between the two organizations in several research fields and establish a national scientific base in the fields of high-precision technologies, with special focus on green energy, water treatment, sea water mining, energy storage materials, and synthesis of a new generation of advanced materials.

# A Cooperation Protocol Signage between Zewail City and Surgitech



Within the framework of the joint cooperation between Surgitech for Medical Supplies and ZC, a cooperation protocol was signed in the presence of Dr. Bahaaeldin Elshaarani, Chairman of the Surgitech Board of Directors, and Prof. Mahmoud Abdrabou, Acting Executive President of ZC.

### **Fundraising News and Highlights**



- Innovators support fund (ISF) provides partial scholarships for distinguished students.
- Sawiris foundation for social development provides full scholarships for distinguished students.
- USAID provides full scholarships for distinguished students.
- The Egyptian refining company (ERC) provides full scholarships for distinguished students.
- Surgi-Tech company provides partial scholarships for distinguished students.
- The Export Development Bank of Egypt (EBE) provides partial scholarships for distinguished students.
- -United bank provides partial scholarships for distinguished students.
- -El. Sewedi electric company provides partial scholarships for distinguished students.
- -QNB Alahli supported ZC science festival and became the premium sponsor for this year.
- -Misr El. Kheir provides partial scholarships for distinguished students. Moreover, with the partner-ship with Abu Dhabi commercial bank (ADCB), they provide full scholarships for the disabled.
- -The Suez Canal Bank provides partial scholarships for distinguished students.

## **Fundraising News & Highlights**



























Foundations















Corporate











# **Construction Progress**

### **Academic Building**









### Library



#### **Entertainment Area**



### **Student Housing Complex**

The Housing Complex added 276 rooms more to the current capacity, raising the capacity to 517 rooms.



#### **Auditorium**

The Administration and Cultural Complex includes a grand Auditorium with a capacity of 1200 seats.





### Cafeteria

It is now completed and fully operating.



### Gym

It is now completed and fully operating.



### Mosque

It is now completed and fully operating.





# **Awards and Recognition**





### **Prof. Salah Obayya**

- The Selection of Prof. Salah Obayya as the First African-Arab Jury Member of the OPTICA Committees Awards
- Distinguished Professor in the Field of Photonics

#### **Prof. Shaaban Khalil**

- Received The State Appreciation Award in the field of basic sciences during the 179th session of the Academy of Scientific Research and Technology (ASRT)





#### **Prof. Mohamed Farhat**

- Won the Khalifa Award for Education category of Distinguished Professor
- Received The State Award for Excellence in the field of engineering sciences

### **Prof. Rabeay Hassan**

- Received BioScience Scientists Awards Chemical Sciences Award 2022.
- Received the Silver Medal at the Geneva International Invention Fair





### **Prof. Samy Soliman**

- Received outstanding paper award at the 24th International Conference on Advanced Communications Technology (ICACT)

### **Faculty Accomplishments**

### The Selection of Prof. Ibrahim El-Sherbiny as a Member of the Science **Education Program (SEP) Work Group**

Prof. Ibrahim El-Sherbiny, Professor and Director of the Nanoscience Program at ZC, has been selected as a member of the Network of African Science Academies (NASAC). NASAC is a network of African Academies of Science and Scientific Research, comprising 28 national academies from several



African countries, including Egypt's Academy of Scientific Research and Technology (ASRT). Prof. El-Sherbiny has also been selected as a member in the Science Education Program (SEP) work group. The SEP work group, which includes experts in science education aims to improve the quality of science education and enhance how science is taught and learnt in Africa.

### Prof. Shaaban Khalil Selected as a Member in the ASRT National Committee for Physics

The Academy of Scientific Research and Technology announced the selection of Prof. Shaaban Khalil, the Founding Director of ZC's Center for Fundamental Physics (CFP), for membership of the ASRT National Committee for Physics. National committees for the various scientific disciplines include distinguished



scientists and are entrusted to represent Egypt in international associations. In addition, each committee is responsible for organizing local, regional, and international scientific conferences, seminars, and workshops related to the committee's field of specialization as well as disseminating cutting edge research output to the Egyptian scientific community.

### Dr. Eman Badr Joins the ASRT National **Committee for Communication and Information Technology**

Dr. Eman Badr, Assistant Professor of Computational Biology and Genomics in ZC's Biomedical Sciences Program, was appointed as a member of the ASRT National Communication and Information Technology Committee. Computational Biology, a discipline at the interface between Biology and Computer



Science, aims to facilitate biomedical discoveries using computational methods combined with artificial intelligence. This national committee serves to represent Egypt in international associations, organize scientific conferences, seminars, workshops, and disseminate cutting-edge research output to the Egyptian scientific community.



### Prof. Ayman El-Shibiny Appointed as a Member of the PRIMA Scientific Advisory Committee

Prof. Ayman El-Shibiny, Director of ZC's Center for Microbiology and Phage Therapy and Center of Scientific Excellence for Food Research and Analysis, has been appointed as a member of the PRIMA Scientific Advisory Committee for a period of three years. The PRIMA Scientific Advisory Committee is an EU program for



Research and Innovation solutions in the Mediterranean region, whose mission is to achieve, support, and promote integration, alignment, and joint implementation of national R&I programs under a common research and innovation strategy to address the diverse challenges in water scarcity, agriculture, food security.

#### **Two Zewail City Faculty Members Selected for Joining ASRT National** Committees

As part of the continuous efforts of Zewail City and the Academy of Scientific Research and Technology (ASRT) to serve the scientific community, Prof. Mohamed El Hadidy, from the Biomedical Sciences Program, was appointed as a member of the Egyptian National Committee for Microbiology. In addition, Prof. Rabeay Hassan, Associate Professor in the Nano-Sciences Program, was appointed as a member of the Egyptian National committee for Pure and Applied Chemistry. National committees for the various scientific disciplines include distinguished scientists and are entrusted to represent Egypt in international associations. In addition, each committee is responsible for organizing local, regional, and international scientific conferences, seminars, and workshops related to the committee's field of specialization as well as disseminating cutting edge research output to the Egyptian scientific community.







### Prof. Shaaban Khalil Appointed as the **President of the Newly-established Arab Physical Society**

Prof. Shaaban Khalil, the director of ZC's Center for Fundamental Physics, has been selected as the founding president of the Arab Physical Society (APS). The society was established in mid 2021 as a non-governmental and non-profit organization that aims to spread and promote physics knowledge, improve physics



knowledge, improve physics education, research, and human capacity building in the Arab world. The society plans to organize scientific and educational activities, support postgraduate students in the Arab world, and award prizes and recognitions to distinguished physicists.

### **Student & Alumni Achievements**

### **Zewail City Team Wins the Second Place at Minesweepers International Competition**



A team of students from Zewail City has won the second international place and a special award "Best Mapping Idea" in the Minesweepers International Competition. The competition was organized as part of Alamein Robotics Championship held in the AAST Alamein New Campus, in March, 2022, under the auspices of the Minister of Higher Education and Scientific Research and the Academy of Scientific Research and Technology (ASRT) with the active participation of more than 80 teams from 50 educational institutes in 4 different countries.

The team, called Aquila, included 10 engineering students from 3 different majors: Nanotechnology and Nanoelectronics Engineering, Aerospace Engineering Program, and Communications and Information Engineering. They were supervised and supported by Prof. Mustafa Abdallah, the Aerospace Engineering Program Director, and Dr. Mahmoud Taha, Assistant Professor in the Environmental Engineering Program.

#### UST Students win in the Electric Vehicle Rally (EVER) Competition



A team of students from ZC's UST participated in the Electric Vehicle Rally (EVER) competition, which gives young engineers the opportunity to challenge and evaluate their technical and creative skills in designing, building, and developing an urban concept for an electric vehicle. The participation of ZC teams started in 2018 in the global hybrid-electric vehicle competition, where the City's team won second place. Then came the second participation in 2019, and the team achieved seventh place. Last year, the team won third place. This year, the students proudly managed to win first place in the "Entrepreneurship" competition with a score of 100%, in addition to winning third place in the finals of the Design Study competition. The 2022 team included students from a variety of UST programs, namely Renewable Energy Engineering, Aerospace Engineering, Communications and Information Engineering, and Environmental Engineering.

## Two Teams of Zewail City Students win the "Imagine the Future" Competition



ZC's team "Paradox" participated in the "Imagine the Future" competition organized by Shell companies in the Asia Pacific and the Middle East; they won second place locally and was awarded 15.000 LE for their project "How will Hurghada be in 2050 and how will tourism and green mobility affect it as driving forces". Radwa Al-Shaer from the Environmental Engineering Program, Basant Hossam from the Biomedical Sciences Program, Ebtehal Alaa from the Renewable Energy Engineering Program, Rodina Muhammad from the Communications and Information Engineering Program from Zewail City, and Esraa Ismail were the team members. The "50s Thinkers" team also won the third place locally in the competition, in addition to a prize of 10,000 LE for their project "What will Baltim City in Kafr El-Sheikh look like in 2050". Members of the "50s Thinkers" team included Anas Mohamed Nagaty from the Renewable Energy Engineering Program, Ibrahim Metwally and Sara Abdulfattah from the Physics of Earth and Universe Program, Mostafa Saad from the Biomedical Sciences Program, and Toursland Saleh from the Communications and Information Engineering Program.

## Zewail City Students won first place in FICS at NUST University in Pakistan







A team of ZC students won first place among the international contestants in the Finding Innovative & Creative Solutions for Society (FICS 2022) competition which was held at NUST University in Pakistan for the "Air quality monitoring using satellite data" project. The team received a Global Champion award of \$1000 and a free 6-month incubation space at the NUST - TechOne Incubator Center. The team included Donia Ibrahim, Alaa Zeidan, and Mayar Atef from the Environmental Engineering Program at UST.

### Zewail City's students Win the Hack the Climate Hackathon



Being one of the three winning teams, a team of ZC students participated in the Hack the Climate Hackathon. Each team received a technical award in the form of services for a project to manufacture small-scale wind turbines. The hackathon was organized by the ECOSYS+ platform, co-funded by the European Union, aiming to enhance the innovation ecosystem in Egypt and raise its global presence. The team members included Youssef Sharif, Omar Khattab, and Tasneem Al-Ahmadi from the Renewable Energy Engineering Program and Maryam Saadawi from the Communications and Information Engineering Program.

### Zewail City's Team Won the First place in the Best Graduation Project Competition



Students from the UST's Environmental Engineering Program in ZC won first place in the competition of the best graduation project, which was held within the framework of the "Cairo Water Week" conference organized by the Ministry of Water Resources and Irrigation. The fifth annual edition of the conference was held in mid-October 2022 and aimed to integrate water issues into climate action, promote innovations to address urgent water challenges in unconventional ways using modern technology, work to support and implement integrated water management policies, and reach sustainable solutions to manage water resources to confront population increase and changes climatic. The team was awarded a financial prize in addition to being honored by His Excellency the Minister of Water Resources and Irrigation, Prof. Hani Sweilam. The graduation project submitted by the UST team dealt with the design of sustainable water facilities for the university campus with the aim of providing a reference and guiding guide for establishing a sustainable water management system for educational institutions. The student team completed their graduation project under the supervision of both Dr. Mustafa Badawi, Director of the Valley of Science and Technology, Director of the Center for Sustainable Development, and Associate Professor in the Environmental Engineering Program and Dr. Yehya Imam, Associate Professor of Environmental Engineering.

#### **Students won the AppX Competition Held in Zewail City**



Three teams, two from ZC students and one including ZC students and other Egyptian universities, won the AppX competition held within the framework of the AppX'22 Event and sponsored by the National Telecommunications Regulatory Authority (NTRA) and the Information Technology Industry Development Authority (ITIDA) held in ZC; they achieved 1st Place (16K LE Prize), 2nd Place (8K LE Prize), and 3rd Place (4K LE Prize). The competition aimed to design a business model for the ideas of companies related to VR and Metaverse. ZC was honoured to have Dr. Adel Elmeslmany, CEO of the African Asian Union (AFASU), Dr. Hossam Darwish, President of AFASU, and Eng. Mohamed Saad as Judges in the First Phase and Dr. Ramy Ahmed Fathy, NTRA Sector Head of Strategic Planning, and Eng. Amir Elsenousi, NTRA Head of Research & Development in the Final Phase.

# Two Zewail City Students Designed an Artificial Intelligence-based App to Improve Students' Mental Health





Zewail City students Mohamed Tarek, from the Environmental Engineering Program, and Naglaa Mohamed, from the Biomedical Sciences Program, designed a mental health software application that aims to relieve students' academic stress, minimize mental health issues, and spread awareness. The application, named Amica, recently won awards in different contests including the Crisis Engineering Contest (CEC) competition and African App Launchpad (AAL). Amica has also been selected by the EBNI incubation to receive funds for finalizing the application and establishing a startup company.

#### A Team of Zewail City Students Wins in the First Phase of the Innovation **Catalyst Competition 2022**









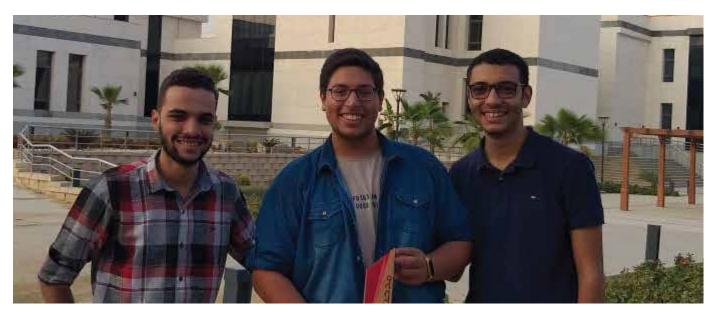
Under the Innovators Support Fund (ISF), a team of students from ZC's UST participated in the Innovation Catalyst Competition 2022. The team included members from Aerospace and Environmental Engineering Programs and worked on a project in ZC's Center of Renewable Energy and Energy Efficiency. The project aimed at developing a new technology for solar-powered desalination for dehumidification (HDH). In the first phase of the competition, the team won a 40,000 EGP fund, in addition to a 30,000 EGP fund from the Academy of Scientific Research and Technology. The team has been qualified for the second phase of the competition.

#### Zewail City's students Win first place in the Rotorthon Aircraft Design



A team of ZC students won first place in the Rotorthon Aircraft Design Competition, which is part of the annual EUROPEAN ROTORS event held in Germany; during the event, the teams get together to solve or innovate some of the more pressing issues in the Vertical Take-off and landing air vehicles. The ZC team's new concept was to use a hybrid VTOL in the emergency medical service, which uses electric motors for takeoff and landing and fuel to move from one area to another. The team members included Nouran Abdelmageed, Karim El-Tannikhy, and Mohamed Ghoraba from the Aerospace Engineering Program.

# Zewail City's Students Won the Medhat Benzoher Award in Greenish Club Competition



A team of ZC students won the Medhat Benzoher Award, a competition held by Greenish club which is a student activity that provides students with the appropriate tools to participate in spreading environmental awareness within their communities by creating their own environmental projects in their local communities. Their project aims to develop a commercial solution to produce pectin and orange oil from orange peel residues generated from juice factories. This project helps achieve better waste management and reduce carbon emissions, in addition to achieving the goals of a recycling and environmentally friendly economy. The winning team are Amr Shokry and Mohamed Ayman from the Environmental Engineering Program and Mohamed Khaled from the Renewable Energy Engineering program.

#### Zewail City Students Participated in the activities of the COP 27 Climate Summit



During the concluding events of COP27, Karim Ehab, student from the Aerospace Engineering Program in ZC, participated in the COP27 Youth Taskforce, which is the team responsible for the Youth Day activities at the Climate Summit; Youth Taskforce, in turn, represented Egyptian youth and the global youth voice in the panel discussion chaired by Professor Hani Sweilem, Egyptian Minister of Water Resources and Irrigation, Kurosy Chapa, President of the United Nations General Assembly and a number of ministers from different countries. Karim also delivered the closing speech on Water Day, which dealt with the crises facing the world in the water file and their solutions documented on the walls of our Egyptian ancestors thousands of years ago; finally, he presented the demands of the Global Youth Document in the water file.

# 13

## **UST Events**

#### **Zewail City's Annual Science Festival**



To fulfill the vision of the late Dr. Ahmed Zewail, a group of ZC students introduced in 2014 Zewail City's Festival of Science and Technology, a huge event in the field of scientific awareness that introduces the public to the wonders of science. In this current year 2022, the idea of the festival was about "accepting change" as the desire for change was the basis for many inventions and scientific achievements that affected and continue to affect our lives. The festival lasted for 4 days in a row; accompanied by speakers from many fields such as physics, economics, philosophy and biology, the Festival included theatrical performances that presented scientific content in an interesting artistic way. The festival's goal was to give back to our community by getting young people interested in science and engaging them in the scientific community.

#### **Zewail City Welcomes new students in Orientation Day**



The new academic year witnessed the Orientation Day, an event organized by the Student Affairs to welcome the 2022 newcomers. The event aimed to brief the new batch of students about their upcoming Academic Life and Non Academic Life including all services, departments and units which work on facilitating services to the students throughout their university journey. The Student Affairs coordinates with the Student Union in order to make the day full of activities that make the newcomers explore the non-academic life on Campus and contribute as ushers to ease the organization process. 50 student volunteers participated in this day to serve 500 new Zewailians.







#### **Zewail City Celebrates its New UST Graduates**



UST at ZC celebrated the graduation of a new batch of students for the academic year 2021-2022, in the presence of Prof. Khaled Abdel Ghaffar, Minister of Health and Population and former Minister of Higher Education and Scientific Research, members of Zewail City's Board of Trustees, the Board of Directors, and several commanders of the Armed Forces Engi- neering Authority, and success partners. Mr. Sherif Fouad, Zewail City's Media Spokesperson, started the ceremony with an opening speech by Prof. Khaled Abdel Ghaffar in which he expressed his pride in the students and the scientist Dr. Ahmed Zewail, the founder of Zewail City. The Minister also announced the launch of the new School of Computational Science and Artificial Intelligence at UST during the 2022-2023 academic year.

Prof. Mahmoud Abd Rabou, Acting Executive President of Zewail City, gave a speech in which he referred to the City's achievements and its efforts in preparing a generation capable of keeping pace with scientific advances. He also announced that UST is about to receive ABET accreditation for several programs, making it the first public university in Egypt to obtain this accreditation. Afterwards, the Minister Prof. Khaled Abdel Ghaffar honored a number of faculty members who received the Zewail City Encouragement and Appreciation Research Awards and the Excellence Award in Teaching. Prof. Abdel Ghaffar also honored a number of the UST students with the Cup of Dr. Ahmed Zewail, in addition to honoring a number of leaders and heads of Egyptian banks, companies, and institutions who contributed to providing support to UST students.

#### Zewail City family celebrated the Holy Month with a Ramadan Iftar



ZC family celebrated the Holy Month with a Ramadan Iftar on the University campus, organized by the Non-Academic Student Life Department and the Valley of Science and Technology together in the presence of Dr. Mahmoud Abdrabou, Acting Executive President, and a group of University professors, city workers and students.

# Zewail City's University of Science and Technology Honored its Distinguished Students



UST has celebrated its distinguished students in an honoring ceremony in recognition of their academic and non-academic achievements in various fields. Prof. Mahmoud Abd Rabou, Zewail City's Acting Executive President of Zewail City, gave a speech expressing his pride in the distinguished students for their outstanding efforts.

#### **Annual Recognition Day at Zewail City**



In late May 2022, ZC honored a number of its faculty members, researchers, and administrators for their remarkable efforts during the previous academic year. Mr. Sherif Fouad, Zewail City's media advisor, gave an opening speech about the City's achievements, followed by a moment of silence in honor and respect to Prof. Ahmed Zewail, the City founder. Afterwards, Prof. Mahmoud Abd Rabou, ZC's Acting Executive President, presented certificates of recognition to the honored colleagues.







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## **UST Club Activities**

#### Clubs' Day

The Clubs' Day is a one-day event organized by the Non-Academic Student Life Department (SLD) and the Student Organization Council (SOC). It aims to introduce the non-academic student life on Campus through the student clubs established by the students. More than 15 clubs and approximately 50 club members were present inside their assigned booths to orient the attending students with each club and invite them to participate in their preferred clubs. The Clubs' activities targeted many areas such as scientific, social, sports and arts.



#### **IEEE Juniors**

IEEE Juniors is a branch of the Main IEEE Student Organization. The main aim of the club is to deliver science and engineering topics to the children age group from 7 – 12 in simple, yet creative ways. In this two-day event, 35 students of IEEE Jr. Club members organized the event and delivered engineering training to 40 attendees from this age group. The event was technically sponsored by Alpha Juniors sports and arts.



#### **IEEE – Appx Event**

Appx is an annual tech-oriented event that is organized annually by ZC Students to explore various areas of technology and engineering. It mainly aims to raise the awareness of the public in certain fundamental topics to keep up with the advancement of technology. AppX stands out in engaging the audience in activities through workshops to gain hands-on experience in the relevant areas. This year, themes varied from neuroscience to artificial intelligence and virtual reality.

50 Zewailians participated in this two-day event which was held on ZC Campus. The event was attended by 195 from the target audience from different age groups and governorates.



This year's event was sponsored by National Telecommunications Regulatory Authority (NTRA) and the Information Technology Industry Development Authority (ITIDA).

The event announced several competitions in the same field. Three teams (two teams from Zewail City students and the third team from Zewail City students and other Egyptian universities) won the AppX competition, which was held within the framework of the AppX Event, sponsored by the (NTRA) and (ITIDA), achieving 1st Place (16K LE Prize), 2nd Place (8K LE Prize), and 3rd Place (4K LE Prize). The competition was to design a business model for the ideas of companies related to VR and Metaverse. We were honored to have Dr. Adel Elmeslmany, CEO of the African Asian Union (AFASU), Dr. Hossam Darwish, President of AFASU, and Eng. Mohamed Saad as Judges in the First Phase and Dr. Ramy Ahmed Fathy, NTRA Sector Head of Strategic Planning, and Eng. Amir Elsenousi, NTRA Head of Research & Companies (18 LE Prize) and 18 Legislation (18 LE Prize) and 19 Legis

#### **Astrolabe Magazine Event**

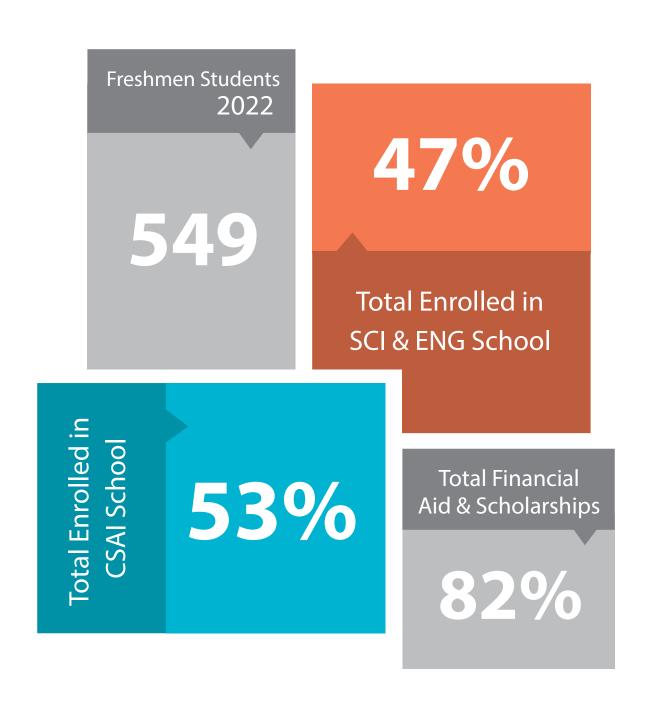
"The Age of Science" Research Summit was hosted by ZC ASTROLABE Magazine. It included seminars about scientific research for both undergraduate and fresh graduates, in addition to a journal club of UST students' international publications.

20 Zewailians organized the event and served 50 attendees interested in the field of research and publishing scientific papers.

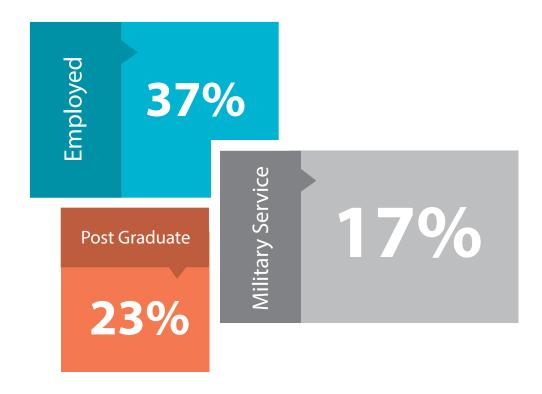


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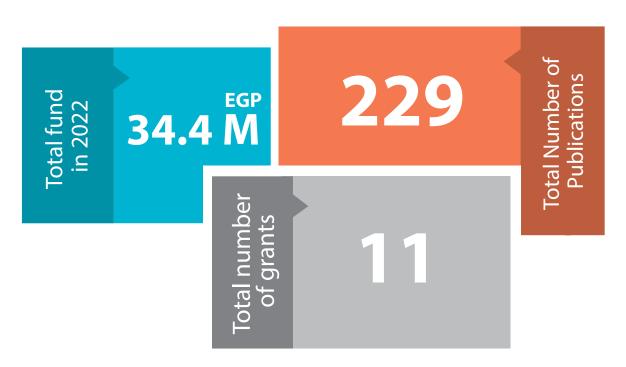
## **Freshmen Students Statistics**



### **Alumni Statistics 2022**



### **Research Statistics**





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