

# Participation of Port Said University (PSU) in COP27



Prepared By:

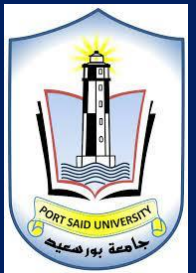
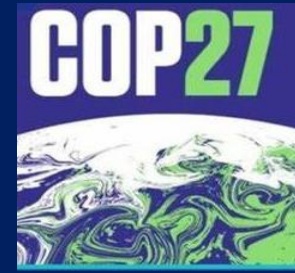
- Prof. Rawya Y. Rizk
- Prof. Rehab F. Abdel-Kader
- Prof. Mohamed I. Bassyouni
- Dr. Heba Y. Soliman
- Dr. Heba M. Abdel-Atty

# Climate Change

2016-2022

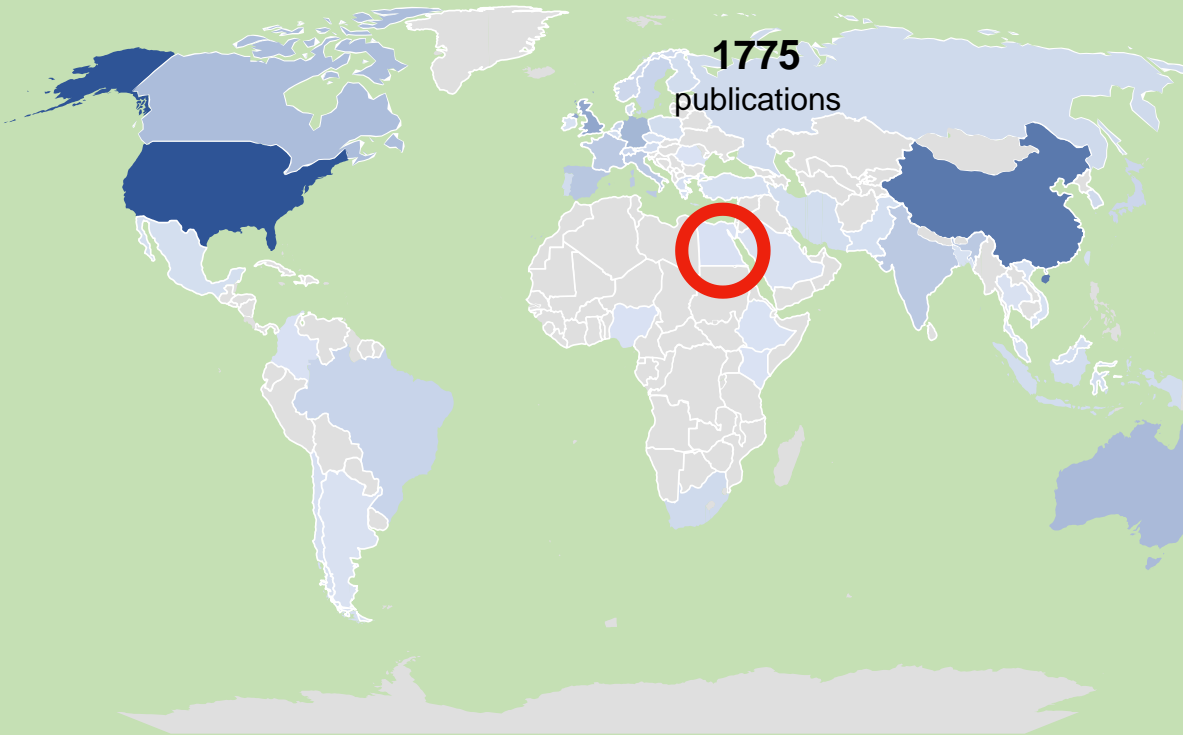
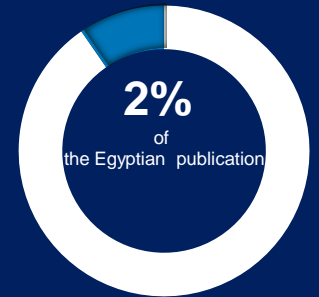
Number of Publications by Egyptian Institutions = 103435

Number of Publications by Port Said University = 1775

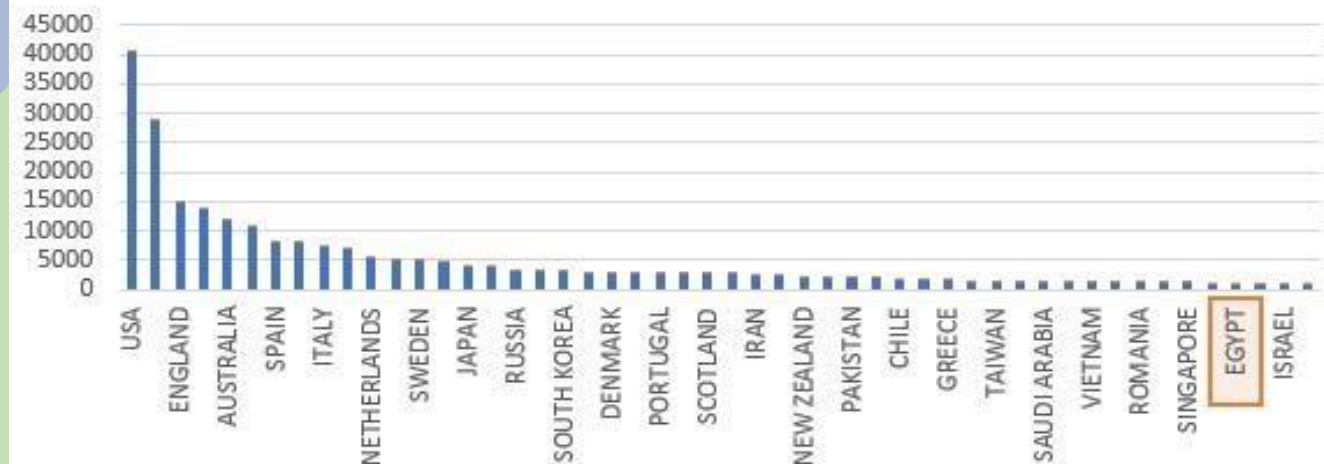


## INTERNATIONAL PUBLICATION

■ Egypt ■ ASU

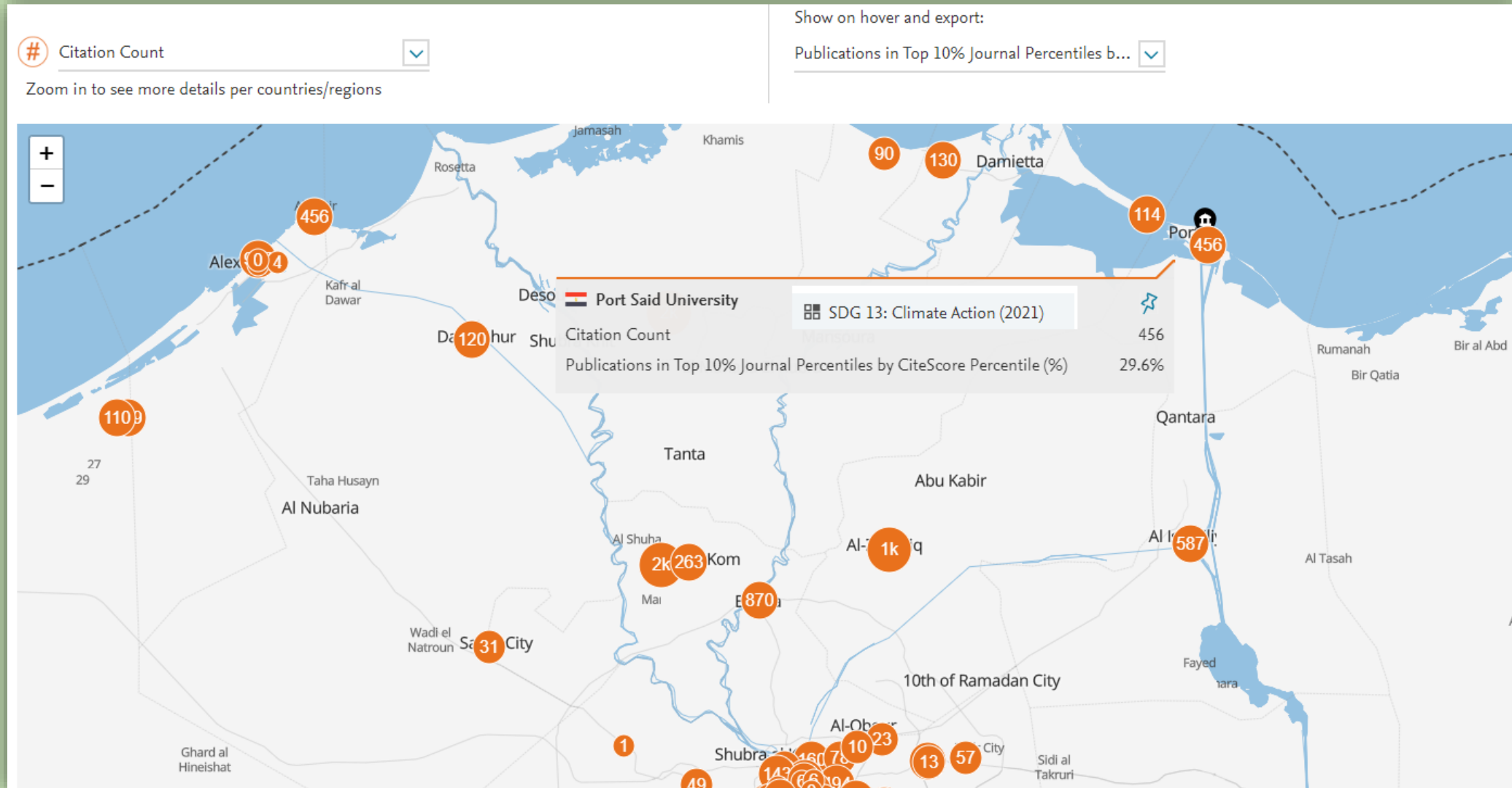


## Global contribution to climate change Research 2019-2022



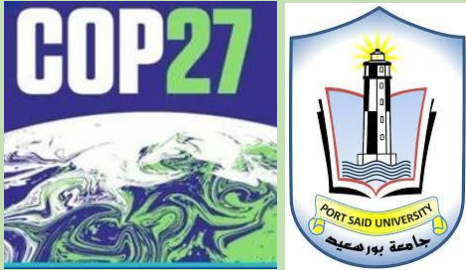
The image contains two logos. On the left is the COP27 logo, featuring the text 'COP27' in large white and green letters above a stylized globe. On the right is the emblem of Port Said University, which is a shield-shaped crest. The crest features a lighthouse on a small island in the center, with a sunburst above it. The lighthouse has the letters 'P', 'S', and 'U' on its sections. The shield is flanked by two vertical bars. At the bottom of the shield is a yellow banner with the text 'PORT SAID UNIVERSITY' in English and 'جامعة بورسعيد' in Arabic. Below the shield are two small yellow circular icons.

## SDG 13: Climate Action (2021)

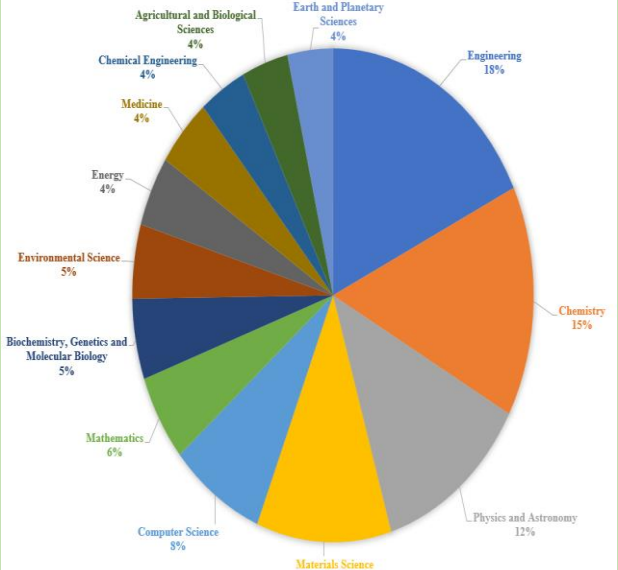


<https://scival.com/trends/institutions/map?uri=Customer/0/ResearchArea/170910>

# Publications by Subject Area in Top Publications and International Collaborations



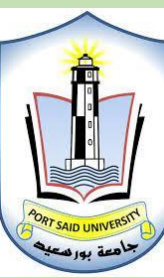
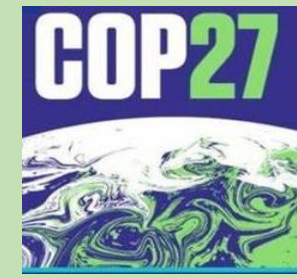
|  |      |  |     |
|--|------|--|-----|
| Engineering                                  | 1031 | Pharmacology, Toxicology and Pharmaceuticals | 186 |
| Chemistry                                    | 875  | Social Sciences                              | 118 |
| Physics and Astronomy                        | 714  | Multidisciplinary                            | 54  |
| Materials Science                            | 627  | Immunology and Microbiology                  | 47  |
| Computer Science                             | 443  | Nursing                                      | 39  |
| Mathematics                                  | 328  | Decision Sciences                            | 33  |
| Biochemistry, Genetics and Molecular Biology | 305  | Business, Management and Accounting          | 27  |
| Environmental Science                        | 281  | Arts and Humanities                          | 21  |
| Energy                                       | 267  | Neuroscience                                 | 21  |
| Medicine                                     | 263  | Economics, Econometrics and Finance          | 13  |
| Chemical Engineering                         | 220  | Health Professions                           | 9   |
| Agricultural and Biological Sciences         | 216  | Psychology                                   | 6   |
| Earth and Planetary Sciences                 | 211  | Veterinary                                   | 4   |



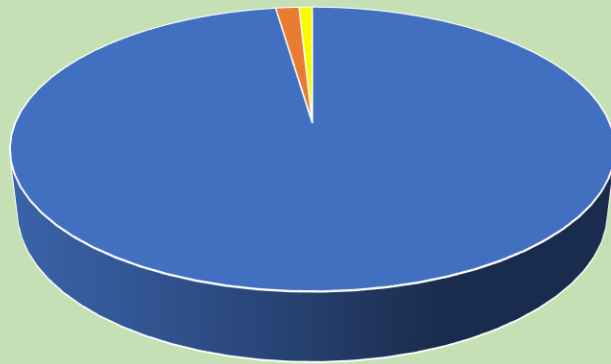
## Performance



# PSU Research Projects

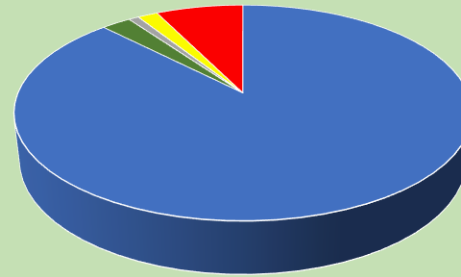


RESEARCH PROJECTS BY FACULTY



■ Engineering ■ Science ■ Art

Funding Agencies



■ Science and Technology Development Fund (STDF)  
■ Academy of Scientific Research and Technology  
■ Ministry of Higher Education and Scientific Research  
■ National Telecommunications Regulatory Authority (NTRA)  
■ others

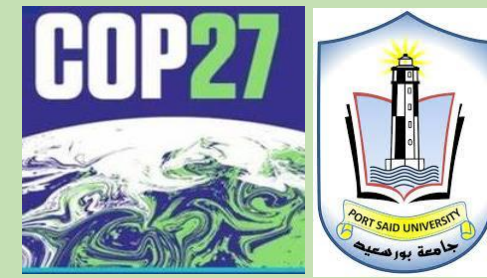
- **2016-2021**
- **22** Funded Research Projects
- Sponsored by Egyptian and International bilateral funding agencies at EGP 58.9M EGP



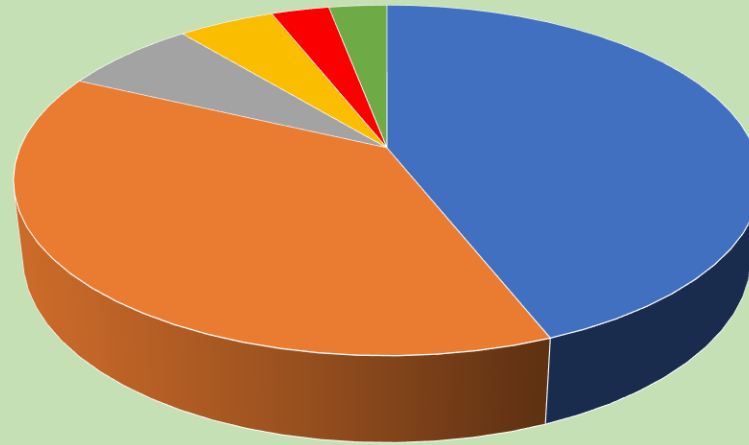
**19 of 22** Are related to **Climate Change**



# PSU Research Projects



Research Projects by Topics



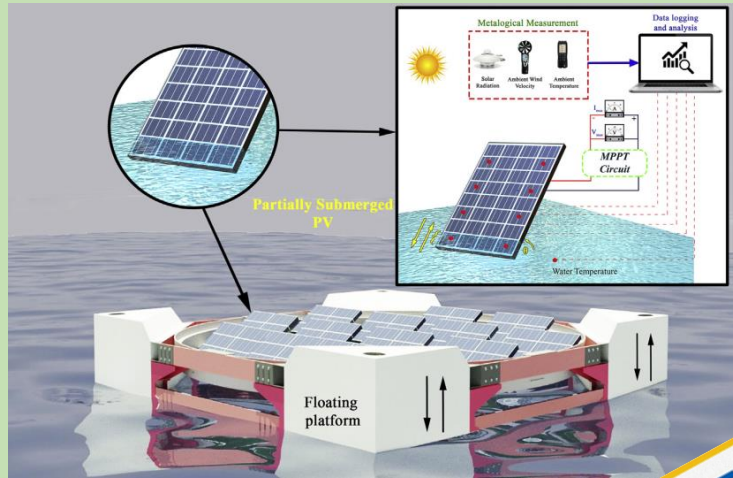
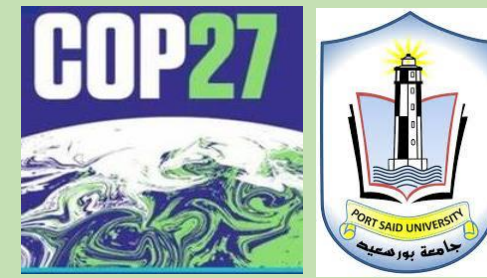
- Renewable Energy
- Water Desalination
- Coastal Erosion
- Recycling
- Climate change strategies & Policies
- Others

- **2016-2022**
- **22** Funded Research Projects
- Sponsored by Egyptian and International bilateral funding agencies at EGP 58.9M EGP

**19 of 22** Are related to **Climate Change**



# PSU Research Projects



Experimental setup of partially floating photovoltaic plant.



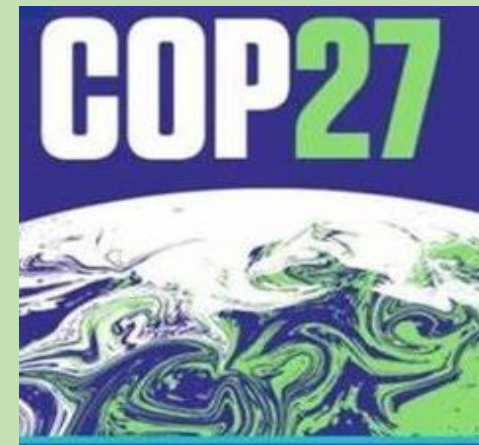
Novel Membrane Water Desalination Pilot Plant Driven By A Hybrid Solar-Biogas Energy Sources

- **2016-2022**
- **22** Funded Research Projects
- Sponsored by Egyptian and International bilateral funding agencies at EGP 58.9M EGP

**19 of 22** Are related to **Climate Change**

# PSU Activities towards COP27

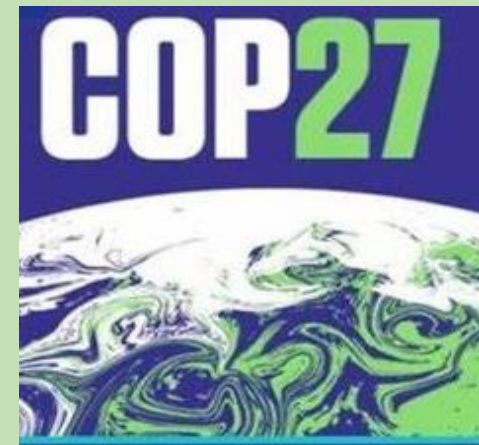
- Judging HULT prize Sinai University competition.
- Seven entrepreneurial projects working to achieve SDG 2.
- The Wandering Minds Project, which works to solve the problems of waste accumulation and the lack of good food for the homeless at the same time, won first place and ascended to the international competition.
- The Volt in food project, which works to provide suitable meals for the elderly, people with determination and autism, won second place and ascended to the regional competition.
- The Green Project, which works to integrate with the African community in order to exploit the fertility of African soil and provide organic food at the lowest possible cost, won the third place and ascended to the regional competition.





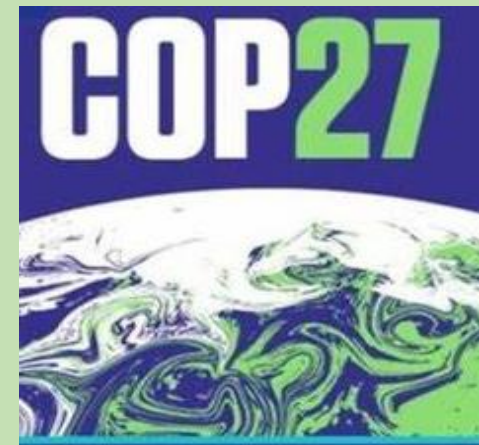
# PSU Activities towards COP27

- PSU is a smoking free campus.
- Port Said University follows a smoking ban policy, which stems from the university's interest in preserving the health of students and university affiliates and preventing them from being exposed to health problems resulting from smoking. And in implementation of the university's policy to prevent smoking inside the university campus, the faculties distributed posters everywhere to warn and raise awareness of the harms of smoking.



# PSU Activities towards COP27

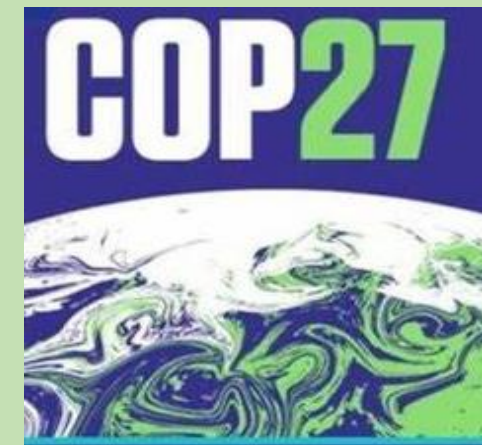
- **PSU water consumption.**
- Port Said University measures the amount of mains supply water used with an average monthly water consumption of approximately 7961 m<sup>3</sup>.
- Some future recommendations to treat kitchen used water for watering plants after the necessary filtration processes.
- The university as a body apply standards to minimize water use. All elder spare parts are replaced with water saving parts. And there are many posters to encourage users to save water.
- Planting landscape is done with the less enough water.
- Port Said university as a body provide free educational opportunities for local communities to learn about good water management and actively promotes conscious water usage on campus, and in the wider community and supports water conservation.





# PSU Activities towards COP27

- **Affordable and Clean Energy.**
- PSU prepares a policy for ensuring all renovations / new builds are following energy efficiency standards in 2022.
- All conventional lighting systems are replaced with energy efficient systems. All the new established buildings are designed with wide areas of windows to efficiently use daylight.
- Port Said university gives a consideration for the carbon management process and reducing carbon dioxide emissions.
- The energy center provides direct services to local industry aimed at improving energy efficiency and clean energy (energy efficiency assessments, workshops, research renewable energy options), informs and supports government in clean energy and energy-efficient technology policy development and helps with startups that foster and support a low-carbon economy/technology.
- Entrepreneurship competition in the field of clean energy.

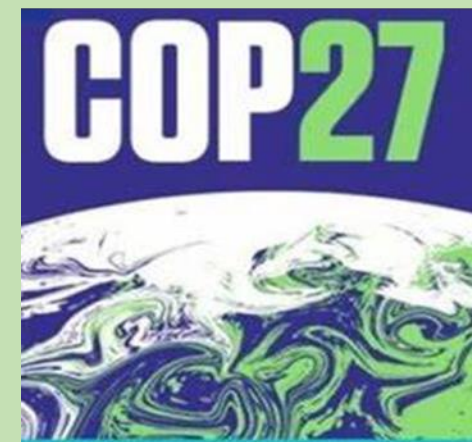


7 AFFORDABLE AND  
CLEAN ENERGY



# Research Centers in Climate Change

- Center for Energy and Environmental Studies
- Center of Excellence in Water Desalination
- Center for Environmental Studies and Scientific Consultations
- Farouk El-Baz Center for Remote Sensing and GIS
- Innovation and Entrepreneurship Center (Under construction).



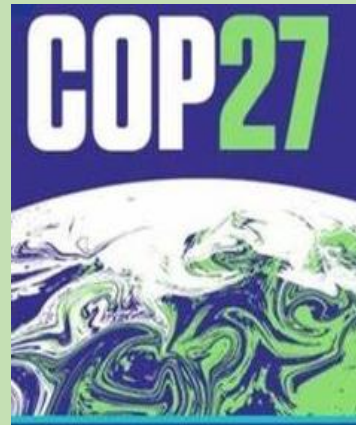
**13** CLIMATE  
ACTION





# Recycling activities

An attempt by the students of the Art Education Department at the Faculty of Specific Education, Port Said University to recycle the remnants of wood, plastic, ropes and some metals as a product of design and artwork dominated by an innovative character. Freedom and the second painting is also an artwork depicting the mermaid in an innovative artistic way, where the students were divided into two groups and each group specialized in a painting. The idea highlights the design with the use of different colors as shown in the pictures. Where the student cleans the environment and preserves it from waste and residues that harm and pollute it, and at the same time save money, which is a heavy burden on the student.

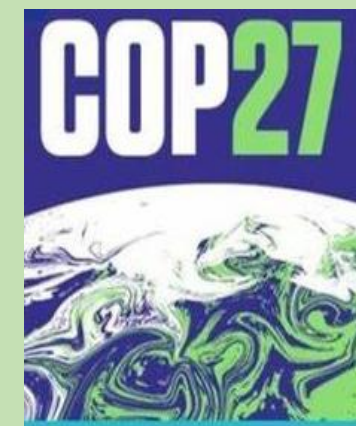


13 CLIMATE ACTION





# Outreach Activities



13 CLIMATE ACTION



| م  | عنوان الفاعلية  | (ندوة - مؤتمر - نشاط)                       | تاريخ الانعقاد | مكان الانعقاد                 | الكلية        | اهم التوصيات المرتبطة بالتغيرات المناخية  |
|----|---|---|----------------|-------------------------------|---------------|---|
| 1  | النظم الذكية وتحديات التغير المناخي: قمة المناخ كوب 27                                      | المنتدى العلمي الافتراضي                    | مايو 2022      | Online                        | جامعة بورسعيد | ضرورة التعامل مع التغيرات المناخية كأهم العوامل التي يجب مراعاتها عند تصميم النظم الذكية  |
| 2  | انترنت الأشياء ومراقبة التغيرات المناخية في الوقت الحقيقي                                   | المنتدى العلمي الافتراضي                    | مايو 2022      | Online                        | جامعة بورسعيد | التأكيد على دور تكنولوجيا المعلومات في حلول التغيرات المناخية   |
| 3  | تأثير التغيرات المناخية على الموارد المائية   | المنتدى العلمي الافتراضي                    | مايو 2022      | Online                        | جامعة بورسعيد | التأكيد على دور تكنولوجيا المعلومات في حلول التغيرات المناخية   |
| 4  | الذكاء الاصطناعي وحلول المشكلات المناخية  | المنتدى العلمي الافتراضي                    | مايو 2022      | Online                        | جامعة بورسعيد | التأكيد على دور تكنولوجيا المعلومات في حلول التغيرات المناخية   |
| 5  | حماية شواطئ مصر من مخاطر التغيرات المناخية  | المنتدى العلمي الافتراضي                    | مايو 2022      | Online                        | جامعة بورسعيد | التأكيد على دور تكنولوجيا المعلومات في حلول التغيرات المناخية   |
| 6  | تكنولوجيا المعلومات وتطوير التكنولوجيا الزراعية الابتكارية المستدامة لمواجهة التغير المناخي | المنتدى العلمي الافتراضي                    | مايو 2022      | Online                        | جامعة بورسعيد | التأكيد على دور تكنولوجيا المعلومات في حلول التغيرات المناخية   |
| 7  | الذكاء الاصطناعي للحد من آثار تغير المناخ على المحاصيل الزراعية                             | المنتدى العلمي الافتراضي                    | مايو 2022      | Online                        | جامعة بورسعيد | التأكيد على دور تكنولوجيا المعلومات في حلول التغيرات المناخية   |
| 8  | التخلص الآمن من النفايات الطبية   | ندوة  | 18 مايو 2022   | مدرج الدراسات العليا          | كلية الطب     | انشاء وحدة التخلص الآمن من النفايات   |
| 9  | التغيرات المناخية والقدرة على التكيف - بالتعاون مع وزارة الشباب والرياضة                    | ندوة<br>أ.د/ محمد كامل<br>د/ احمد عبد العال | 22 مارس 2022   | كلية العلوم<br>قاعة المناقشات | كلية العلوم   | الحد من الملوثات و العوادم أساس تجنب الاحتباس الحرار<br>تجنب تعدي الانسان على البيئة أساس انقاذ البيئة من اثار تغيرات المناخ<br>تعريف الطلاب وأعضاء هيئة التدريس ومعاونتهم بالتغيرات المناخية وأثارها الضارة بالبيئة والكائنات الحية وطرق الوقايه<br>الحد منها من خلال الهدف 13 من أهداف التنمية المستدامه ورؤية مصر 2030 |
| 10 | "التغيرات المناخية" وتأثيراتها في قطاعي الزراعة والمياه في المنطقة العربية                  | ندوة  | يوليو 2021     | كلية التربية                  | كلية التربية  |   |



# Recommendations for Climate Change Activities

1. Issuing an Egyptian scientific journal entitled "Climate Change" to publish local and international research related to climate change.
2. Teaching climate change at the secondary level, universities and higher institutes.
3. Collaborating research teams of Egyptian colleges and universities in order to develop current studies related to climate change.
4. Working to adapt or benefit from climate change.
5. Using modern and contemporary geographic techniques such as geographic information systems techniques and remote sensing applications to model climate changes.
6. Increasing financial appropriations to protect the shores of the Nile Delta.
7. Rely on alternative energy sources and clean energy.
8. Rely on the green economy.
9. Establishing an international center for weather forecasting and analysis.
10. The necessity of dealing with climate changes as the most important factors that must be taken into account when designing smart systems.
11. Participation of researchers periodically in local and international workshops and conferences related to climate change and submitting periodic recommendations reports.
12. Urging universities and colleges to increase master's and doctoral theses related to climate change in various disciplines.

