



Pharos University in Alexandria
Vice President for Graduate Studies & Research
International Ranking committee



THE Impact Ranking SDG11 Report

11

Sustainable Cities and Communities



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SDG11: Sustainable Cities and Communities Events

11.1 Sustainability Competition

<https://www.pua.edu.eg/sustainability-competition/>

Within the sustainability week launched by the Tourism Department, 3rd year students in the tourism impact and sustainability course – as part of their final dissertation – presented a set of creative ideas. These ideas reflected the concept of sustainability and its significance for tourist destinations

The students were divided into a group of competing teams, under the supervision of Assoc. Prof. Dr. Ghada Bassiouni, and Prof. Amr Moroccan. Each team was keen on implementing an idea that reflects the concept of sustainability in tourist destinations.

This was done by designing posters, fliers, and magazines, that highlighted the extent to which they have acquired the learning skills targeted in the course specification.



11.2 Climate Conference

<https://www.pua.edu.eg/climate-conference-2/>

A high-level delegation from Pharos University participated in the “Future of Alexandria and Climate Challenges” conference held at the Bibliotheca Alexandrina on Tuesday, March 29, 2022, which was co-sponsored by Pharos University. The delegation included Prof. Dr. Mahmoud Mohy El-Din, President of the University, Prof. Dr. Prof. Nourhan Fanaky, Vice-President for Education and Student Affairs, Prof. Dr. Prof. Ramadan Abu El-Ala, Vice President of Community Service & Environment Development Affairs, Prof. Dr. Boshra Salem, Dean of Postgraduate Studies and Research, and Prof. Dr. Ramadan Abdel Maksoud, Supervisor of the Department of Architecture, Faculty of Engineering, along with a number of university students. Further, the delegation members participated in the important discussions and recommendations produced from the sessions held in this regard.





11.3 Department of Electrical Engineering in The First Egyptian Hackathon for Smart Cities

<https://www.pua.edu.eg/department-of-electrical-engineering-in-the-first-egyptian-hackathon-for-smart-cities/>

Within the framework of its interest in participating in major local events, the student from the Department of Electrical Engineering are currently participating in the activities of the first Egyptian Hackathon for Smart Cities at the national level. The event was held at Benha University from March 24 to March 26, 2022 under the patronage of His Excellency the Minister of Higher Education and Scientific Research, and in partnership with the Amazon Web Service.

Benha University, as the organizer of the event, announced that 478 teams representing 50 Egyptian public, private, and national universities applied to participate in the hackathon. The teams were later shortlisted to only 40 teams representing 25 universities.

The electrical engineering department team was chosen as the sole representative of Pharos University. The team includes five students from the fifth year, namely: Mohamed Abdel Azeem, Fayza Abdel Fattah Mohammad, Ahmed Khalil, Seif El-Din Mahmoud, Mohammad Ali Ahmed. Further, the project presented was supervised by Prof. Dr. Ahmed Abdullah. The team is also accompanied by Eng. Abdul Rahman Khaled, teaching assistant, as a supervisor.

Prof. Dr. Muhammad Abdul Rahman, Academic Supervisor of the Electrical Engineering Department, said that the 25 teams compete in ten different fields, including smart buildings, smart parks, smart schools and universities, smart facilities, smart management, and others.

Furthermore, the event coincides with the biggest current challenges of the Egyptian state, which is digitization and smart digital transformation. Prof. Dr. Muhammad Abdul Rahman also stressed the importance of the participation of Pharos University and its students in these major competitions and forums which allow students to acquire the necessary skills for competition, challenge, and innovation. Further, to honor the university's quest in the adoption of engineering educational competencies that keep pace with the requirements of the times.



11.4 Pharos University Organized “Towards Sustainable Tomorrow” Competition

<https://www.pua.edu.eg/pharos-university-organized-towards-sustainable-tomorrow-competition/>

The faculty of Engineering organized the “Towards Sustainable Tomorrow” competition sponsored by Birla Carbon Egypt for the third year in a row. This was held on Tuesday, 28 July 2020. The competition aims to choose creative projects that serve sustainability. The value of 36000 LE was allocated for the awards of the first three places: 17000 LE for the 1st place, 12000 LE for the 2nd place and 7000 for the 3rd place. It is worth mentioning that 6 projects participated in this competition from Electrical Engineering, Mechanical Engineering, Petrochemical Engineering Departments. The judging panel was comprised of:

- Mona Gamal Eldeen, the Dean of the School of Energy Resources, Environment, Chemical and Petrochemical Engineering at the Egypt-Japan University of Science and Technology. (Head of the judging panel)
- Waael Almaghlany, the Head of Mechanical Engineering Department at Alexandria University.
- Boshra Salem, the Consultant of the President of the University for International Relations and Projects.
- Mohamed Naeem, the Vice Dean of the Faculty of Engineering.

The electrical engineering project “IoT Approach for Sustainable Green Campus” won the 2nd place in the competition. It was submitted under the supervision of Dr. Mohammed Adb El Karim.

Petrochemical Engineering Department participated with 2 projects:

- “Synthesis of Ion Exchange Resins for Ammonia Removal Based on Waste Polymers” which was submitted under the supervision of Dr. Rania Farouk.
- “Recycling of Polyester Fabric Scraps” won 3rd place in the competition. It was submitted under the supervision of Dr. Ehsan Nafed.

Mechanical Engineering Department participated with 3 projects:



- “Design, Modeling and Performance Analysis of Solar Still” which was submitted under the supervision of Dr. Mohamed El Saied Youssef.
- “Design and Optimization of Network Solar” won the 1st place in the competition. It was submitted under the supervision of Dr. Mohamed El Naqib.
- “Home Scale Vertical Axis Wind Turbine (VAWT)” won the 2nd place in the competition. It was submitted under the supervision of Dr. Sameh Tawfik.



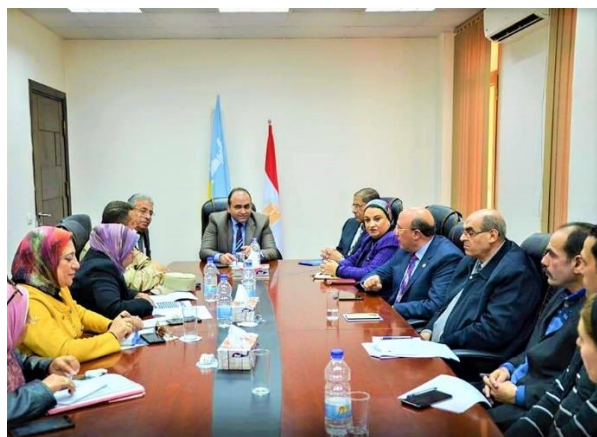
11.5 Pharos Contributions in the “Live Green” Presidential Initiative

<https://www.pua.edu.eg/pharos-contributions-in-the-live-green-presidential-initiative/>

Prof. Ramadan Abu El-Ala, the Vice President of Community Service and Environment Development Affairs and Prof. Hesham El Shimy, the Director of the Community Service and Environmental Development Centre (CSED) participated in a meeting about the “Live Green” initiative. The meeting was held in Alexandria Governorate Office on Wednesday, 12 February 2020.

The meeting was attended by Mr. Ahmed Gamal, the Deputy Governor of Alexandria and representatives from all concerned authorities in the governorate. This meeting aimed to discuss the mechanisms to apply the “Live Green” initiative launched by the President of Egypt to raise environmental awareness in Alexandria. During the meeting, Mr. Ahmed Gamal stressed the importance of the consultative role of Pharos University which came within the framework of the government keenness to achieve cooperation and integration by taking advantage of the experiences of the scientific bodies in Alexandria and working hand in hand for the benefit of the governorate.

In addition, Prof. Hesham El Shimy showed the attendees a study on “Harmonic Mechanisms for Treating all Types of Wastewater to Irrigate a Sustainable Green Belt to Protect the Vicinity of Lake Mariout.” It is worth mentioning that the study impressed all the attendees, and it was stressed upon the need for adopting that study by the governorate and other authorities at the local and central levels. At the end, the Deputy Governor asked for an electronic copy of the study to put it into practice.





SDG11: Sustainable Cities and Communities Publications

No.	TITLE/YEAR/AUTHORS	DOI
1	Improving urban park usability in developing countries: Case study of Al-Shalalat Park in Alexandria 2020 Alexandria Engineering Journal	10.1016/j.aej.2019.12.042
	Abdelhamid, M.M. Elfakharany, M.M.	
	Pharos University in Alexandria	
2	LEED v4.1 operations & maintenance for existing buildings and compliance assessment: Bayt Al-Suhaymi, Historic Cairo 2020 Alexandria Engineering Journal	10.1016/j.aej.2020.01.027
	ElSorady, D.A. Rizk, S.M.	
	Pharos University in Alexandria Beni-Suef University	
3	Adaptive Reuse Decision Making of a Heritage Building Antoniadis Palace, Egypt 2020 International Journal of Architectural Heritage	10.1080/15583058.2018.1558313
	Elsorady, D.A.	
	Pharos University in Alexandria	
4	Functionalization of CeO ₂ -SiO ₂ -(CH ₂) ₃ -Cl nanoparticles with sodium alginate for enhanced and effective CdII, PbII, and ZnII ions removal by microwave irradiation and adsorption technique 2020 Environmental Nanotechnology, Monitoring and Management	10.1016/j.enmm.2020.100367
	El-Sharkawy, R.M. Allam, E.A. Mahmoud, M.E.	
	Pharos University in Alexandria Alexandria University	
5	Mapping UML sequence diagram into the web ontology language OWL 2020 International Journal of Advanced Computer Science and Applications	10.14569/IJACSA.2020.0110542
	Elsayed, M. Elkashef, N. Hassan, Y.F.	
	Pharos University in Alexandria Alexandria University	
6	Assessment of coverage quality of sensor networks for IoT applications 2020 Peer-to-Peer Networking and Applications	10.1007/s12083-019-00796-2
	Elsaadany, A. Khalil, K.	
	Pharos University in Alexandria	



No.	TITLE/YEAR/AUTHORS	DOI
7	A Fuzzy, Incremental and Semantic Trending Topic Detection in Social Feeds 2020 2020 11th International Conference on Information and Communication Systems, ICICS 2020	10.1109/ICICS49469.2020.239492
	Abou-Of, M.A.	
	Pharos University in Alexandria	
8	A review on steel surface image features extraction and representation methods 2020 Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, LNICST	10.1007/978-3-030-60036-5_17
	Ashour, M.W. Khalid, F. Halin, A.A. Darwish, S.H. Abdulrazzaq, M.M.	
	Pharos University in Alexandria Universiti Putra Malaysia International Islamic University Malaysia	
9	The influence of social media marketing on consumer purchase intention of fresh produce in Egypt 2020 Proceedings of the 7th European Conference on Social Media, ECSM 2020	10.34190/ESM.20.009
	Ragab, I. Ragab, M.A.F.	
	Pharos University in Alexandria	
10	Evaluating the legibility of complex buildings: A quantitative model for indoor wayfinding 2020 WIT Transactions on Ecology and the Environment	10.2495/SC200121
	Ahmed, S.H. Taha, D.S. Hasan, A.E.	
	Pharos University in Alexandria Alexandria University	
11	Predicting Stock Market Trends for Japanese Candlestick Using Cloud Model 2020 Advances in Intelligent Systems and Computing	10.1007/978-3-030-44289-7_59
	Madbouly, M.M. Elkholy, M. Gharib, Y.M. Darwish, S.M.	
	Pharos University in Alexandria Alexandria University	



No.	TITLE/YEAR/AUTHORS	DOI
12	Sustainable Touristic path toward cultural identity 2020 Journal of Engineering Research	10.21608/erj.2020.145854
	Ragheb, R.A. Naguib, I.M.	
	Pharos University in Alexandria	
13	H-Seed: Vision for smart city 2020 WIT Transactions on Ecology and the Environment	10.2495/SDP200091
	Shehata, H.M. Bakr, A.F. Hassan, A.	
	Pharos University in Alexandria Alexandria University	

SDG11: Sustainable Cities and Communities Courses

No	Faculty in Pharos University	Course name	Course code	SDG of relevance	Topics in each course
1	Engineering	Renewable energy and storage systems	EM 333	SDG11	Different methods of energy storage systems, : electrical energy lightening, energy saving, heat energy saving, insulation, solar energy, smart building, equipment design, sensors and computer-controlled processes.