



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

THE Impact Ranking SDG7 Report



Affordable and
Clean Energy





SDG 7 Affordable and Clean Energy

Pharos University in Alexandria is paying a lot of attention to affordable and clean energy issues. This is in the form of initiatives, courses, events, projects, and cooperation agreements. The following are some examples of the university's efforts to address energy.

Affordable and Clean Energy Events

The Architectural Engineering Department of at Pharos University held a workshop in Vienna, Austria, which tackled sustainability, recycling, and renewable energy

The Architectural Engineering Department of at Pharos University held a workshop in Vienna, Austria. 17 students from PUA participated in the workshop, in addition to 43 students from other nationalities. The workshop program provided a remarkable group of different scientific lectures, which mainly tackled the importance of sustainability, recycling, and renewable energy. In addition to their significance in maintaining the environment and individuals' general mental and physical health. Furthermore, the workshop provided a variety of valuable lectures by professors from different countries and nationalities in all disciplines related to energy and sustainability sciences.



URL: <https://www.pua.edu.eg/vienna-workshop/>



“Towards a Sustainable Tomorrow” competition

Posted On: August 31, 2022

PUA’s Faculty of Engineering held the “Towards a Sustainable Tomorrow” competition, which is held annually under the sponsorship and support of Birla Carbon Co. The competition aims to link engineering students’ graduation projects to the labor market and real problems related to sustainability.



URL: <https://www.pua.edu.eg/towards-a-sustainable-tomorrow-competition/>



TU Dublin University visits the Faculty of Engineering

Posted On: June 11, 2023

Within the framework of its annual job fair and the scientific day, PUA's

Faculty of Engineering hosted Dr. Cormac McMahan, Professor at TU Dublin, Ireland. Dr. McMahan delivered a lecture on recent trends in sustainability entitled "Education Suitability Development Embedding Suitability in The Curriculum". This lecture shed light on the importance of integrating sustainability and sustainable development goals into the educational process.

It also highlighted its importance in the development of education, and how often it's mentioned in the course content.

URL: <https://www.pua.edu.eg/tu-dublin-university-visits-the-faculty-of-engineering/>





A workshop on recycling LED light bulbs as a modern electricity source

Posted On: May 13, 2024

The Faculty of Pharmacy is actively engaged in initiatives to position PUA as a leading environmentally friendly institution. To this end, the Faculty's Community Service and Environmental Affairs Committee, under the patronage of Prof. Dr. Mohamed Etman, Acting Vice President for Environmental Affairs and Community Service, along with the Dean of the Faculty, organized a workshop on recycling LED light bulbs. This workshop was held in conjunction with PUA's Recycle It Campaign, as part of its broader efforts to attain the Green Pharos title.



URL: <https://www.pua.edu.eg/recycling-light-bulb-workshop-2/>



PUA holds competition for the best community research projects

Community Research Projects

Posted On: March 3, 2024

PUA's administration has pledged to continue the journey and keep organizing its celebration to select the best community research projects, which aim to spread the competitive spirit among its students, and to commemorate its late founder, Mr. Muhammad Rajab (RIP). In this context, PUA held a final qualifier session for the best 3 community sustainable research projects for the academic year 2022/2023. This event was sponsored by the administration, and attended by vice presidents, deans and vice-deans, and experts from the labor market.



URL: <https://www.pua.edu.eg/community-research-projects/>



Sustainability in Education Project

Posted On: May 13, 2024

As part of its commitment to the Sustainability in Education Project, PUA's International Relations Department concluded an agreement with Technological University Dublin (TU Dublin), a strategic partner of PUA, to provide a professional diploma program in sustainability in education. Under this agreement, PUA nominated faculty members from various faculties to participate in the program, equipping them with the essential tools to incorporate sustainability principles into their teaching methods. Over a duration of six months, these faculty members engaged in workshops and fulfilled assignments to augment their expertise and capabilities. Additionally, representatives from diverse faculties showcased their effective integration of sustainability principles into their instructional approaches.



URL: <https://www.pua.edu.eg/sustainability-in-education-project/>

URL: https://www.linkedin.com/posts/puaedueg_pua-pharos-puanews-activity-7196397084466462720-KPzc/?originalSubdomain=ae



2nd Edition of the Intra-Africa 2063 Competition

Posted On: February 7, 2023

In light of the first aspiration of the Africa agenda 2063 entitled “A prosperous Africa, based on inclusive growth and sustainable development”, the E-Club of Pharos University in Alexandria (PUA) is launching its 2nd edition of the Intra-Africa 2063 Competition entitled “SDGs through Entrepreneurship... Possible Contributions and Future Directions”. This is in cooperation with the International Relations Department and “Durban University of Technology (DUT), South Africa” from the 6th to the 9th of March 2023.

The E-Club PUA aims to focus in its 2nd edition of the Intra-Africa 2063 competition on achieving the SDGs through entrepreneurial ideas, serving our Africa through the following themes:

- Climate and Environment
- Health and Medical Field
- Culture and Education
- Green Economy / Technology
- Hospitality and Indigenous Food

Accordingly, the African Universities gather to discuss common issues and find shared solutions.

URL: <https://www.pua.edu.eg/2nd-edition-of-the-intra-africa-2063-competition/>



Participation in Hackathon_ Cop27

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Hackathon | COP 27



SUBMISSION SUMMARY

Project Title

water regulator for plants

Project Description

Water regulator

A project which have a great impact on the climate. Just from a sensor which can detect the water level of any plant and a water pump which release the accurate amount of water that saturate the plant needs we made two great changes first one we ration the water use and at the same time we protect plants from death because of the excessive water irrigation

Project Topic

Natural life on Earth

University Name

Pharos University in Alexandria

Project Title (Arabic)

منظم المياه للنباتات

Project Description (Arabic)

منظم المياه

مشروع له تأثير كبير على المناخ. فقط من جهاز استشعار يمكنه الكشف عن مستوى المياه في أي نبات ومضخة مياه تطلق الكمية الدقيقة من المياه التي تشبع احتياجات النباتات. قمنا بإجراء تغييرين كبيرين، الأول نقوم بتقنين استخدام المياه وفي نفس الوقت نحمي النباتات من الموت بسبب الري المائي الذي يتم ريه بالخطأ من المزارعين المفرط

Video

[View](#)

Attachment

Water regulator prototype.pdf

Registration Members

Display Name Amr khaled Zakaria	Display Name (Arabic) عمرو خالد زكريا محمد	Role Project Coordinator	Mobile No. 01118455667	E-Mail 202002120@pua.edu.eg
National Id 30207160201078	Collage Name Physical therapy Pharos University In Alexandria	Study Group Name Third		
Display Name Omr Emad Tawfik Abd -El-Megied	Display Name (Arabic) عمر عماد توفيق عبد المجيد	Role Team Member	Mobile No. 01283149226	E-Mail 202002635@pua.edu.eg
National Id 30205140200994	Collage Name mass communication collage Pharos University In Alexandria	Study Group Name Third		
Display Name Rania Ahmed Hassan Mohamed Diab	Display Name (Arabic) رانيا احمد حسن محمد دياب	Role Supervisor	Mobile No. 01278105266	E-Mail rania.hassan@pua.edu.eg
National Id 12345678910126	Collage Name Physical Thereby Pharos University In Alexandria	Study Group Name Sixth		
Display Name moamen Esssam Eldein Abd El Sattar	Display Name (Arabic) مؤمن عصام الدين عبد الستار	Role Team Member	Mobile No. 01144585252	E-Mail momenessam196@gmail.com
National Id	Collage Name	Study Group Name		

Activate
Go to Sett



3rd Hackathon for Smart Solutions in New and Renewable Energy 2024

Posted On : April 17, 2024

PUA's Field Training Center, in collaboration with the Electronics Research Institute (ERI) of the Ministry of Higher Education and Scientific Research, is pleased to announce the forthcoming launch of the third Hackathon. This event, conducted in partnership with the Academy of Scientific Research and Technology, will be titled "3rd Hackathon for Smart Solutions in New and Renewable Energy 2024."

The primary objective of this initiative is to bolster the Social impact of scientific research by nurturing a cohort of young innovators adept at generating creative solutions in the realm of new and renewable energy. By focusing on areas such as solar energy, wind energy, hydroelectric energy, geothermal energy, biomass energy, and green hydrogen energy, the hackathon seeks to address pressing challenges and foster technological advancements in these critical domains.

URL: <https://www.pua.edu.eg/3rd-hackathon-for-smart-solutions-in-new-and-renewable-energy-2024/>



PUA's Engineering at the 3rd Hackathon

Posted On : May 4, 2024

The first team presented a project titled “LED Grow Light Fixture Prototype for Smart Greenhouse,” while the second team showcased a collaborative project between the Electrical and Mechanical Engineering Departments titled “Design and Fabrication of Novel PUA Bladeless Wind Power.” Participating students expressed their enthusiasm for the opportunity to advance to the final stage of the competition, highlighting the valuable learning experiences gained from interaction with 40 universities and research institutions.

Engaging with peers from diverse backgrounds expanded students’ knowledge in electrical engineering and renewable energy fields, while fostering connections with industry professionals. Industrialists praised the innovative project ideas presented by the teams, affirming the relevance of such competitions in bridging academic knowledge with practical applications.



URL: <https://www.pua.edu.eg/luas-engineering-at-the-3rd-hackathon/>



The design of wind turbines without blades, is the latest findings of Egyptian researchers, trying to explore the latest technologies that can be used for electricity generation.

The wind energy projects in Egypt are the forefront of the country's concerns, especially given the country's tremendous resources in this sector, as well as the easy localization of the turbine components.

In this context, Egyptian researchers are working on new designs for turbines, most recently the findings of the research team composed of the Mechanical Engineering and Electrical Engineering Departments of Pharos University, Alexandria.

The researchers succeeded in finding a design -- the Washington-based specialized energy platform -- for a turbine that generates wind power without blades.

The project won first place at the Petra University in Jordan, Jordan.





Project: Solar panels in satellites

Mr. Mahmoud Mohammed Al-Maliji, Dean of the Faculty of Engineering, advisors to the Dean of the College, Mr. Dr. Alaa Shabl, Chief of Mechanical Engineering, Gentlemen, Department of Staff, Assistant Body, congratulating the team of the Mechanical Engineering Department of the Faculty of Engineering, Pharos University, for getting fourth place at Astro Material, and the first team in



the history of the Satellite Track, to receive the Best Award of Innovation in one of the course of the eighth International Contest at the Military Technical College (Commander Ibrahim Slim Award), the first team, the UV experimental CubeSat, a research satellite to measure the ratio of UV in space, and the second team participated in the development of a new material used to anticipate to move the solar panels in small satellites used to anticipate the temperature on the planet.

It should be noted that the University of pharos teams of second and third years students are directly competing with a specialized research team from the Chinese University of HIT, projects graduating from the Military Technical College, Alazhar University, Beni Suev University, Suez Canal University, Ain Shams University and Zagazig University. The competition events concluded on Thursday, 1/8/2024. The awards ceremony was honored by the Commander-in-Chief of the Egyptian Armed Forces, the Minister of Defence and War Produce, and a large number of leaders of the armed forces, heads of universities and scientific and research bodies.

URL: https://www.linkedin.com/posts/faculty-of-engineering-pharos-university-in-alexandria-p-u-a_%D9%8A%D8%AA%D9%82%D8%AF%D9%85-%D8%A7%D9%84%D8%B3%D9%8A%D8%AF-%D8%A7%D9%84%D8%A7%D8%B3%D8%AA%D8%A7%D8%B0-%D8%A7%D9%84%D8%AF%D9%83%D8%AA%D9%88%D8%B1-%D9%85%D8%AD%D9%85%D9%88%D8%AF-%D9%85%D8%AD%D9%85%D8%AF-%D8%A7%D9%84%D9%85%D9%84%D9%8A%D8%AC%D9%8A-activity-7225209442085027840-uEN/?originalSubdomain=ae



Hult Prize World Competition for environmental and community sustainability

Hult Prize 2023 فريق جامعة فاروس بنصف نهائيات مسابقة

Posted On: July 16, 2023

Petro Team (The Petrochemical Engineering Department of the Faculty of Engineering) for winning second place at the Egypt Summit for Community Investment Projects launched by the Innovators and Representatives Fund in cooperation with the Hult Prize World Competition, with the aim of competing among student groups at various Egyptian universities by providing prototypes for innovative clothing and costume projects; to turn them into startups, supporting environmental and community sustainability.

The final set of the competition was held on Saturday, 13 June 2023, among 11 student teams, representing 10 Egyptian universities, at the Innovation Centre (IHub) at Ain Shams University.

PUA Petro team won second place; The team has received a prize of 30,000 pounds.

The Petro team was able to find an innovative idea to improve the properties of polyurethane, which is used in the artificial leather industry, furniture, textiles, by adding environmentally friendly, flame-resistant, more effective and inexpensive natural materials; making it safer and flame-resistant, and the team has reached promising results to improve mechanical and thermal performance.



URL: <https://www.pua.edu.eg/%D9%81%D8%B1%D9%8A%D9%82-%D8%AC%D8%A7%D9%85%D8%B9%D8%A9-%D9%81%D8%A7%D8%B1%D9%88%D8%B3-%D8%A8%D9%86%D8%B5%D9%81-%D9%86%D9%87%D8%A7%D8%A6%D9%8A%D8%A7%D8%AA-%D9%85%D8%B3%D8%A7%D8%A8%D9%82%D8%A9-hult-pri/?lang=ar>



Sustainable projects at IATF 2023

Dr. Nurhan Al-Heridi, Coordinator of African Relations at the University and a teacher at the Architecture Department of the Faculty of Engineering at the Forum and Conferences of the Intra-African Expo Convention (IATF 2023), held in Cairo from 9 to 15 November 2023 under the auspices of the President of the Republic, where the Forum provided a unique and valuable platform for expanding African communication with African bodies and universities. The forum focus on implementation of sustainable development goals through entrepreneurship enforcement in Africa.



URL: https://www.instagram.com/pua.edu.eg/p/CrgqO_SluSU/?img_index=1

URL: <https://www.pua.edu.eg/puas-participates-in-iatf-2023/>

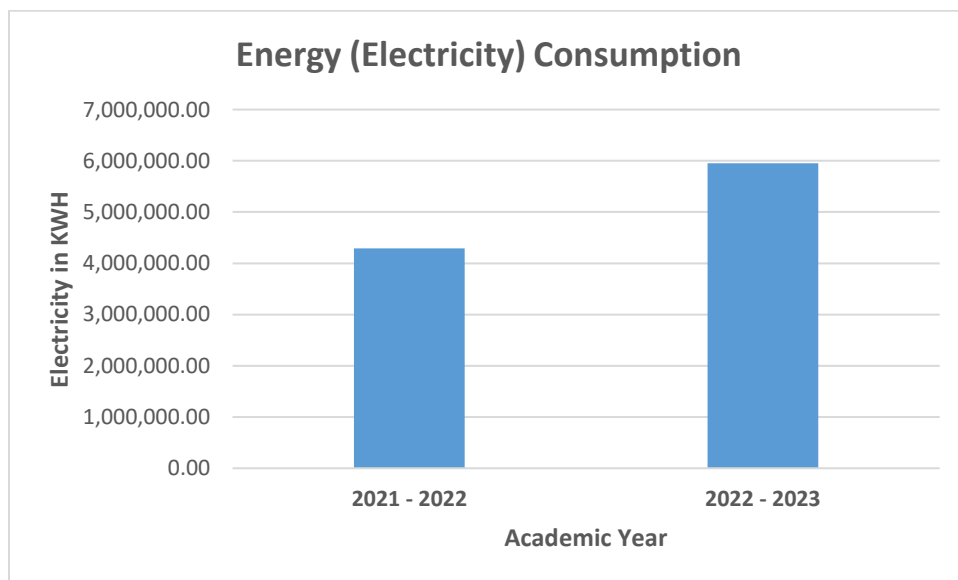


PUA Energy Reviews to identify areas where energy wastage is highest

Pharos University in Alexandria monitors energy consumption monthly to identify areas with high wastage. This resulted in constructing Plans to upgrade existing buildings to higher energy efficiency by utilizing energy-efficient appliances for example, insulation, LED lighting and the deployment of sustainable technology.

The following table and graph illustrate the electricity consumption in the academic year 2021-2022 and 2022-2023:

No.	Academic Year	Energy (Electricity) KWH	Energy (Electricity) GJ
1	2021 - 2022	4,290,327.00	15,445.18
2	2022 - 2023	5,954,767.00	21,437.16





Actions and approaches towards energy conservation

Pharos University Plan to conserve energy

All buildings at Pharos University in Alexandria implement the elements of green building in construction. This is done by:

- Allowing natural daylight and ventilation in all classrooms, offices and laboratories,
- Green plants are available in all corridors,
- Instructions are available on stickers to always switch off the lights when not in the room to enhance energy saving.



Natural Daylight – Natural Ventilation (Pharos University in Alexandria, Egypt)



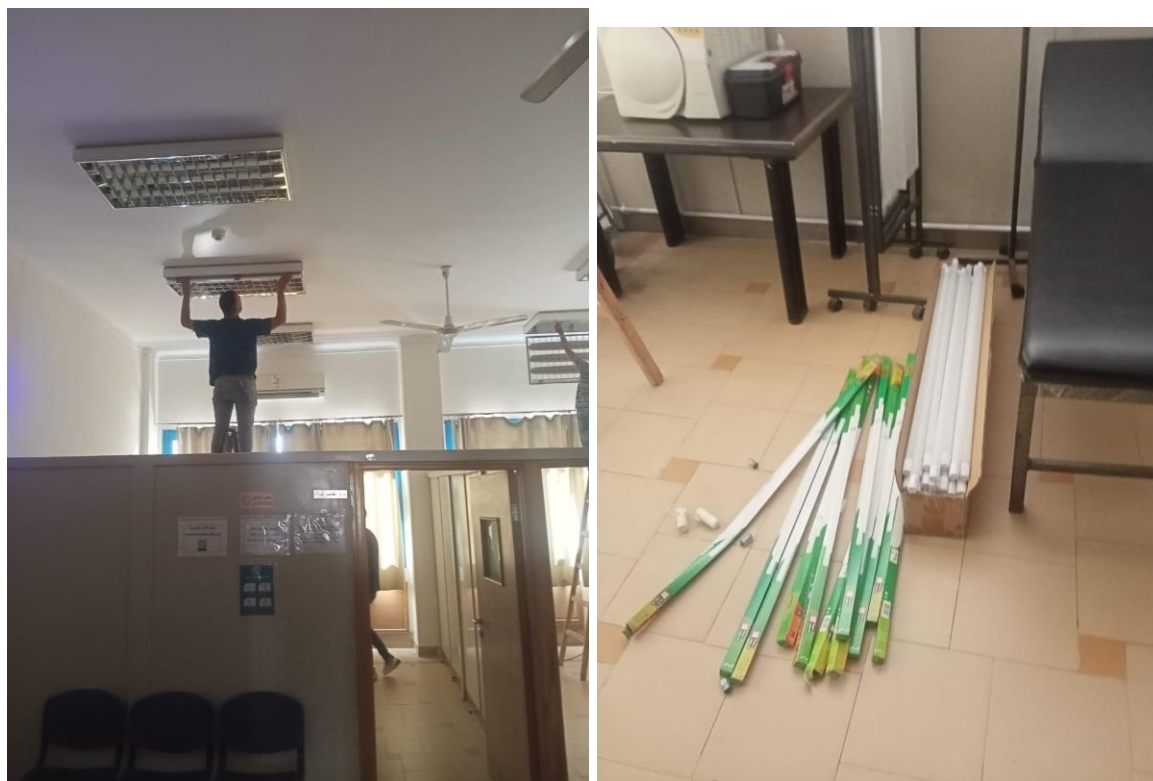
Instructions are available on stickers to always switch off the lights (Pharos University in Alexandria, Egypt)



Spreading awareness on energy conservation throughout the university

Energy Efficient Appliances Usage:

Using LED lighting as an energy efficient light source



Pharos University in Alexandria intends to realize further energy savings by paying close attention to energy management. All parts of the organization can assess their own energy consumption and realize their own energy-saving potential by means of, for example, insulation, LED lighting and the deployment of sustainable technology.

Appliance	Total Number	Total number energy Efficient appliances	Percentage
LED Lamp	250,000	150,000	60%
Fan	150	50	33%
Etc.
Average Percentage			46%



Elements of Green Building Implementation as Reflected in All Construction and Renovation Policies

Glass transparent windows for Natural Daylight – Natural Ventilation (Pharos University in Alexandria, Egypt)





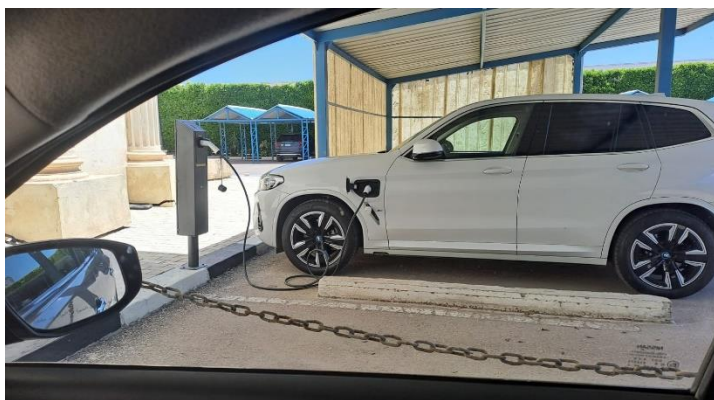
Greenhouse gas emission reduction program

Pharos University in Alexandria campus sites are cyclist and pedestrian friendly. Many have vehicle-free paths for these users. There is a 30 kmph speed limit on all internal roads, and cycle paths on the public roads.

At PUA zero emission vehicles include electric cars which constitute 7% of cars in the campus. In addition to 8% of cars using natural gas as fuel.

At PUA parking for bicycles are available.

Ride share designed to encourage commuters to adopt healthy and sustainable transportation options. (Carpool)



Electric Car Charging (Pharos University in Alexandria, Egypt)



Charging point for Electric Cars (Pharos University in Alexandria, Egypt)



Ride Share (Carpool) (Pharos University in Alexandria, Egypt)



Bicycles Parking (Pharos University in Alexandria, Egypt)



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PUA Participated in Opening SRTA Solar Power Plant



URL: <https://www.pua.edu.eg/media-gallery/photo-albums/pua-participated-in-opening-srta-solar-power-plant/>



Programs and courses that involve modern and renewable energy

A Professional Training Program in the Field of Lighting

“Lighting Design in Projects”

The First –of- its- Kind Program in Egypt and Arab World

The Professional training program in lighting graduates distinguished people in the field of lighting, equipped with scientific and professional information that enables them to conduct studies and designs for lighting projects depending on the specifications of international standards applied in the most advanced European and American countries following the sustainable developments and the sustainable development goals

Those who are qualified to join the training program:

1. The graduates of the faculty of Engineering for the Architectural Engineering and the Electrical Engineering Departments.
2. The graduates of the faculty of Fine Arts for the Interior Design and the Expressive Arts Programs.
3. The graduates of the faculty of Mass Communication.
4. The graduates of the faculty of Agriculture for the Landscaping Department.
5. Equivalent higher institutes and their final year's students.

The program qualifies the students to obtain the necessary information in the following areas:

1. The nature of light and its physical properties, light quantities and methods of its measurement.
2. Human correlation with light and colors, and the interaction of the eye to this.
3. Basic concepts and rules in the interior and exterior lighting.
4. Electrical lamps and lighting units.
5. Foundations and principles of decoration and interior design in residential and commercial buildings, hotels and other buildings.

The Professional training program grants students the ability to do the following:

1. Interior lighting designs of different places (offices, educational buildings, hotels, public places, halls and theaters, hospitals and places of health care, shopping centres, residential buildings and factories – according to the Egyptian Code for Lighting Design and Implementation.
2. Exterior Lighting designs (streets, roads and squares, building facades, stadiums, bridges and tunnels, and landscaping)- according to the Egyptian Code for Roads and Tunnels Lighting Design and Implementation.



The Program features:

1. The student will be granted a degree certificate accredited by Pharos University.
2. The program follows both theoretical and applied approaches.
3. A group of lighting- specialized professors are teaching the program.

Study System:

The lighting training program is scheduled afternoon at two days a week, for a period of 5 weeks.

4. Courses of the Faculty of Engineering

<https://www.pua.edu.eg/faculty-of-engineering/facilities/>

A specialized Course in renewable Energy with a specialised Energy Systems Lab (E620)

An Energy Systems lab is devoted for the second year students in the electrical engineering department for teaching the course "Energy Systems (EE271)" and some of the graduation projects' students.

In this lab, we are working on three topics which are: the generation of electrical energy, the utilization of electrical energy and the storage of electrical energy.

There are three experiments serving the generation topic:

- First is a conventional-type power plant which is "Hydraulic power plant". In this experiment, the potential energy stored in the water is being converted into electrical energy utilized in some loads such as lamps.
- Second is a renewable-type power plant which is "Wind power plant". It contains a small model of a wind turbine which converts the kinetic energy in the air into electrical energy.
- Third is also a renewable-type power plant which is "Solar power plant". It contains a small model of a photovoltaic panel which converts solar energy into electrical energy



There is one experiment which serves the utilization

which is "Wind power plant". It contains a small model of a wind turbine which converts the kinetic energy in the air into electrical energy.

- Third is also a renewable-type power plant which is "Solar power plant". It contains a small model of a photovoltaic panel which converts solar energy into electrical energy

There is one experiment which serves the utilization topic which is "Illumination and Wiring". This experiment contains different types of lamps which are being introduced to the students with their connections and the usage of the suitable ballast and ignitor for each lamp.

Finally, the last experiment serves the storage topic which is "Fuel Cell". In this experiment, a chemical reaction is made between oxygen and hydrogen in a PEM cell which results in generation of water, heat and electrical energy stored and utilized in some loads such as refrigerator, washing machine, heater and a small lamp.



URL: <https://www.pua.edu.eg/faculty-of-engineering/professional-programs/>



Courses that Support Affordable and Clean Energy

No	Faculty in Pharos University	Course name	Course code	SDG of relevance
1	Engineering	Energy conservation	EP 330	SDG 7
2	Engineering	Renewable energy and storage systems	EM 333	SDG 7
3	Mass Communication	Communication and Development	COM 103	SDG 1 - SDG 2 - SDG 7 - SDG 9 - SDG 11
4	Mass Communication	The Arts History	GEN 302	SDG 7
5	Tourism and Hotel Management	Tourism and Globalization	TM 472	SDG 1 - SDG 7 - SDG 8 - SDG 10 - SDG 11 - SDG 13 - SDG 16 - SDG 17
6	Tourism and Hotel Management	Tourism Impact and Sustainability	TM 354	SDG 1 - SDG 6 - SDG 7 - SDG 8 - SDG 11 - SDG 13 - SDG 14 - SDG 15
7	Tourism and Hotel Management	Resort and Condominium Management	HM 411	SDG 7 - SDG 9
8	Tourism and Hotel Management	Hospitality Facilities Planning&Design	HM 451	SDG 6 - SDG 7 - SDG 9 - SDG 11
9	Tourism and Hotel Management	Hospitality Project 2	HM 482	SDG 7 - SDG 9
10	Arts and Design	Typography (1)	GD 471	SDG 6 - SDG 7 - SDG 9 - SDG 14 - SDG 15
11	Arts and Design	Typography (2)	GD 472	SDG 6 - SDG 7 - SDG 9 - SDG 14 - SDG 15



No	Faculty in Pharos University	Course name	Course code	SDG of relevance
12	Arts and Design	Typography (3)	GD 571	SDG 6 - SDG 7 - SDG9 - SDG 14 - SDG 15
13	Arts and Design	Graduation Project Research	ID 581	SDG 7 - SDG 9 - SDG 11 - SDG 13
14	Arts and Design	Graduation Project	ID 582	SDG 7 - SDG 9 - SDG 11 - SDG 13
15	Arts and Design	Digital photography	TD 411	SDG 7 - SDG 9
16	Arts and Design	Television Scenery Design	TD 421	SDG 7 - SDG 9
17	Arts and Design	Theatrical Scenery Design	TD 423 - TD 424	SDG 7 - SDG 9 - SDG 12
18	Arts and Design	Audio and Visual	TD 461 - TD 462	SDG 7 - SDG 9
19	Arts and Design	Digital Character Design	TD 521	SDG 7 - SDG 9
20	Arts and Design	Sociology & Psychology of Design	TD 533	SDG 7 - SDG 9
21	Arts and Design	History of Cinema	TD 541	SDG 7 - SDG 9
22	Arts and Design	Technology of Contemporary Theater	TD 562	SDG 7 - SDG 9
23	Arts and Design	Graduation Project Research	TD 581	SDG 7 - SDG 9 - SDG 11 - SDG 12
24	Arts and Design	Graduation Project	TD 582	SDG 7 - SDG 9 - SDG 11 - SDG 12
25	Arts and Design	Interior Architecture Theories	ID 431	SDG 7 - SDG 9 - SDG 11
26	Arts and Design	Architectural Render	ID 551	SDG 7 - SDG 9 - SDG 11
27	Engineering	Technical Report Writing and Presentation	HU 113	SDGs 12 SDG7



No	Faculty in Pharos University	Course name	Course code	SDG of relevance
28	Engineering	Environmental Studies in Architecture	EA 001	SDG 7 and SDG13
29	Engineering	Data and Computer Communications	EC 361	SGD7, SGD8,SGD9
30	Engineering	Computer Networks	EC 363	SGD7, SGD8,SGD9
31	Engineering	Computational Models	EC 372	SGD7, SGD8,SGD9
32	Engineering	Digital Control System	EE 391	SDG7, SDG9 & SDG11
33	Engineering	Graduation Project (1)	ES 400-1	SDG 6, SDG 7, SDG 8, SDG 9, SDG 11, SDG 14
34	Engineering	Graduation Project (2) - Water and Waste Water Engineering	ES 400-2	SDG 6, SDG 7, SDG 8, SDG 9, SDG 11, SDG 12, SDG 14
35	Engineering	Digital Logic Fundamentals	EE 202	SDG7, SDG11 & SDG12
36	Engineering	Introduction to Electronic Circuits	EE 213	SDG3, SDG7, SDG9, SDG11, SDG12 & SDG13
37	Engineering	Micro-Electronic Devices and Circuits	EE 224	SDG3, SDG7, SDG9, SDG11, SDG12
38	Engineering	Solid State Electronics	EE 225	SDG7
39	Engineering	Energy Systems	EE 271	SDG 3, SDG 7, SDG 11, SDG 12 & SDG 13



No	Faculty in Pharos University	Course name	Course code	SDG of relevance
40	Engineering	Digital Integrated Circuits	EE 338	SDG3, SDG7, SDG9, SDG11, SDG12
41	Engineering	Digital Image Processing	EE 345	SDG7 & SDG12
42	Tourism and Hotels Management	Room Division Management	HM 311	SDG 7
43	Engineering	Engineering Perspectives and Technology	HU 121!!	SDG 3 - SDG 4 - SDG 7 - SDG 8 - SDG 9 - SDG 12 - SDG 17
44	Engineering	Engineering Environment and Society	HU 161!!	SDG 3 - SDG 5 - SDG 6 - SDG 7 - SDG 8 - SDG 9 - SDG 11 - SDG 12 - SDG 13 - SDG 14 - SDG 15 - SDG 17



No	Faculty in Pharos University	Course name	Course code	SDG of relevance
45	Engineering	Eng.Drawing 2 & Descriptive Geometry	EB142	SDG 4 - SDG 7 - SDG 9
46	Financial and Administrative Sciences	Islamic Finance	BF858	SDG 1 - SDG 2 - SDG 3 - SDG 4 - SDG 5 - SDG 6 - SDG 7 - SDG 8 - SDG 9 - SDG 10 - SDG 11 - SDG 12 - SDG 13 - SDG 14 - SDG 15 - SDG 16 - SDG 17
47	Arts and Design	Graduation Project	ID582	SDG 7 - SDG 11 - SDG 13
48	Arts and Design	Motion Graphics 1	MA323	SDG 7



Publications that Address Affordable and Clean Energy

Title	Authors	Year	Scopus Source title	Citations	Field-Weighted Citation Impact	DOI	Sustainable Development Goals (2023)
Potential cardioprotective effect of octreotide via NOXs mitigation, mitochondrial biogenesis and MAPK/Erk1/2/STAT3/NF-k β pathway attenuation in isoproterenol-induced myocardial infarction in rats	Khalifa, A.A. El Sakkary, N.H. Elblehi, S.S. Diab, M.A. Ali, M.A.	2022	European Journal of Pharmacology	14	2.15	10.1016/j.ejphar.2022.174978	SDG 3 SDG 7 SDG 9 SDG 12
Maximum Power Point Tracking for Solar Photovoltaic System Based on Interval Type-3 Fuzzy Logic: Practical Validation	Hamdy, M. Ibrahim, A. Abozalam, B. Helmy, S.	2023	Electric Power Components and Systems	12	2.4	10.1080/15325008.2023.2188316	SDG 7
Phenol Biodegradation and Bioelectricity Generation by a Native Bacterial Consortium Isolated from Petroleum Refinery Wastewater	Shebl, S. Hussien, N.N. Elsabrouty, M.H. Osman, S.M. Elwakil, B.H. Ghareeb, D.A. Ali, S.M. Ghanem, N.B.E.D. Youssef, Y.M. Moussad, E.E.D.A. Olama, Z.A.	2022	Sustainability (Switzerland)	7	0.81	10.3390/su141912912	SDG 6 SDG 7 SDG 15



Title	Authors	Year	Scopus Source title	Citations	Field-Weighted Citation Impact	DOI	Sustainable Development Goals (2023)
Novel dual-function GC/MS aided ultrasound-assisted hydrodistillation for the valorization of Citrus sinensis by-products: phytochemical analysis and anti-bacterial activities	Abdel Samad, R. El Darra, N. Al Khatib, A. Chacra, H.A. Jammoul, A. Raafat, K.	2023	Scientific Reports	4	0.84	10.1038/s41598-023-38130-9	SDG 7
Optimizing Energy Consumption in Smart Homes: A Comprehensive Review of Demand Side Management Strategies	Gado, D.M. Hamdan, I. Kamel, S. Abdelaziz, A.Y. Jurado, F.	2023	Proceedings - IEEE CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies, ChileCon	2	2.42	10.1109/CHILECON60335.2023.10418744	SDG 7



Title	Authors	Year	Scopus Source title	Citations	Field-Weighted Citation Impact	DOI	Sustainable Development Goals (2023)
Open-Phase Fault-Tolerant Control Approach for EV PMSM based on Four-Leg VSI	Elsayed, M.E. Hamad, M.S. Ashour, H.A.	2022	2022 23rd International Middle East Power Systems Conference, MEPCON 2022	2	1.41	10.1109/MEPCON1.2022.10021774	SDG 7
The Optimization, Kinetics Model, and Lab-Scale Assessments of Phenol Biodegradation Using Batch and Continuous Culture Systems	Elnahas, R.A. Elsabrouty, M.H. Shebl, S. Hussien, N.N. Elwakil, B.H. Zakaria, M. Youssef, Y.M. Moussad, E.E.D.A. Olama, Z.A.	2023	Sustainability (Switzerland)	1	0.22	10.3390/su151612405	SDG 6 SDG 7 SDG 9 SDG 15
Deep learning-based energy efficiency and power consumption modeling for optical massive MIMO systems	Salama, W.M. Aly, M.H. Amer, E.S.	2023	Optical and Quantum Electronics	1	0.22	10.1007/s11082-023-04759-z	SDG 7 SDG 13
The green roof effect on the seismic response of RC frame structures	Elhout, E.A.	2022	Innovative Infrastructure Solutions	0	0	10.1007/s41062-021-00708-5	SDG 7 SDG 12



Title	Authors	Year	Scopus Source title	Citations	Field-Weighted Citation Impact	DOI	Sustainable Development Goals (2023)
Novel Photovoltaic Modules and Wind Turbine Performance Modeling Techniques Based on Artificial Intelligence and Deep-Learning	Mahmoud, G.M. Elrefaie, H.B. Elsayed, M.E. Abo-Elkhair, E.	2022	International Telecommunications Conference, ITC-Egypt 2022 - Proceedings	0	0	10.1109/ITC-Egypt55520.2022.9855721	SDG 7
Optimization of International Rating System Evaluation for Adaptive Reuse Projects	Helal, H.M. Maarouf, I. Nassar, D.M.	2022	Advances in Science, Technology and Innovation	0	0	10.1007/978-3-030-99480-8_18	SDG 7 SDG 11 SDG 12 SDG 13
Exergy study of amine regeneration unit for diethanolamine used in refining gas sweetening: A real start-up plant	Ibrahim, A.Y. Ashour, F.H. Gadalla, M.A. Farouq, R.	2022	Alexandria Engineering Journal	9	1.26	10.1016/j.aej.2021.04.085	SDG 7