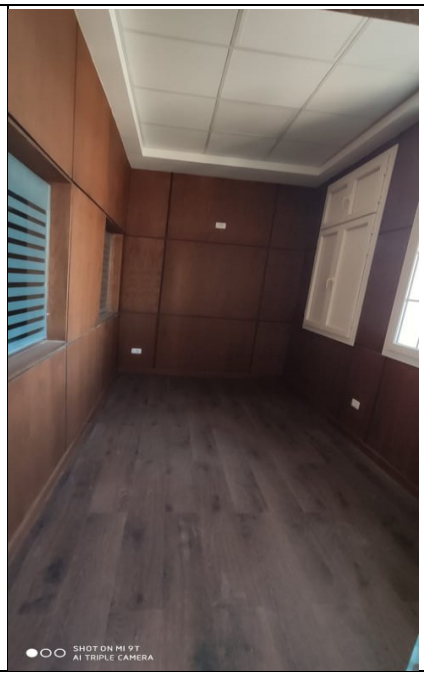
Template for Evidence(s)
UI GreenMetric Questionnaire

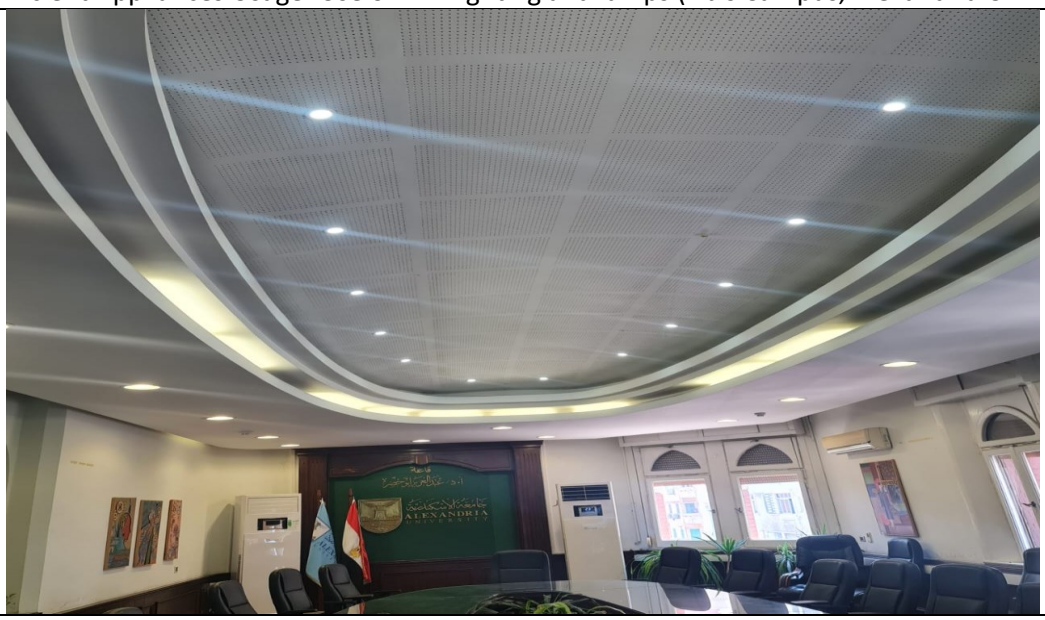
University : Alexandria University
Country :Egypt
Web Address : https://alexu.edu.eg/

[2] Energy and Climate Change (EC)

[2.1] Energy Efficient Appliances Usage



Energy Efficient Appliances Usage: Use of LED lighting and lamps (Abis Campus, Alexandria University)



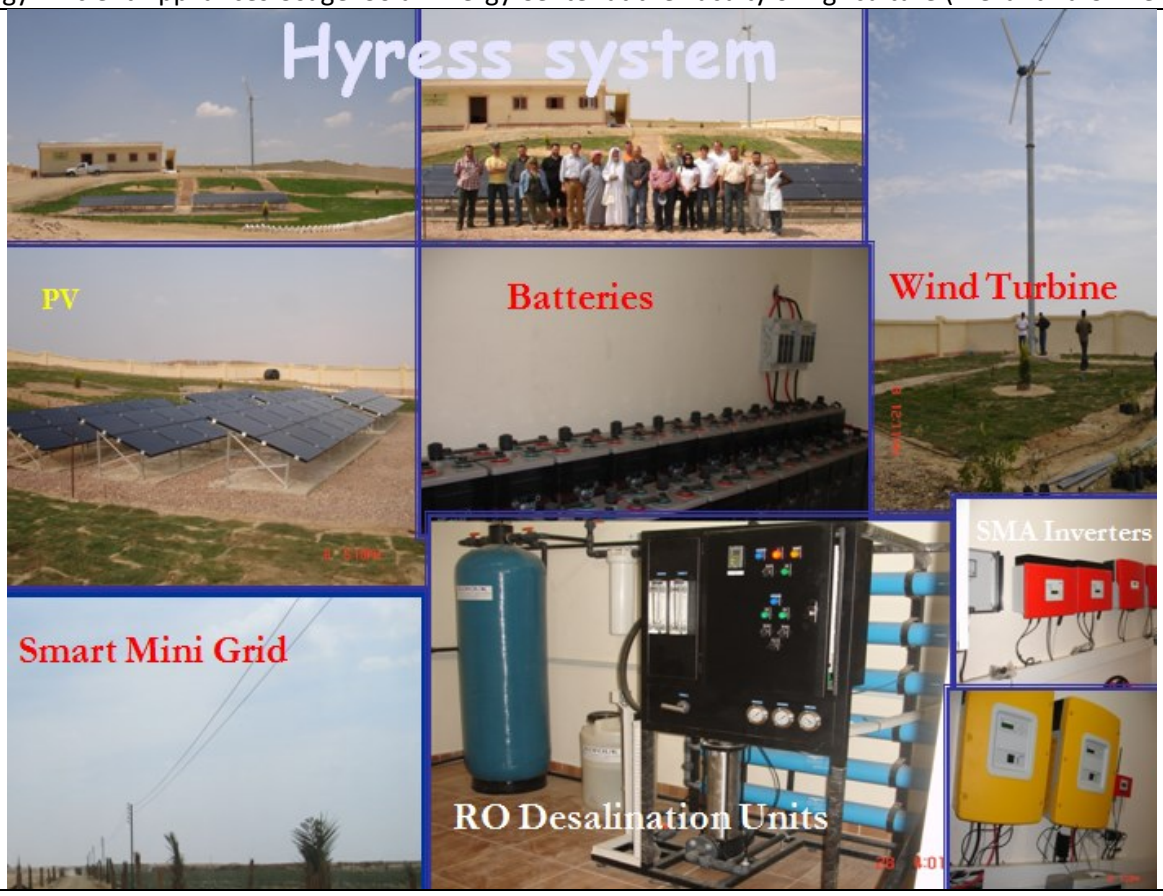
Alexandria University Initiative on Using LED Lamps as Energy Saving Lamps (2019-2023)

Energy Efficient Appliances Usage: Use of LED lighting and lamps (New Abbes Campus, Alexandria University)

Energy Efficient Appliances Usage: Natural lighting and lamps (New Abbes Campus, Alexandria University)

Alexandria University Initiative on Using LED Lamps as Energy Saving Lamps

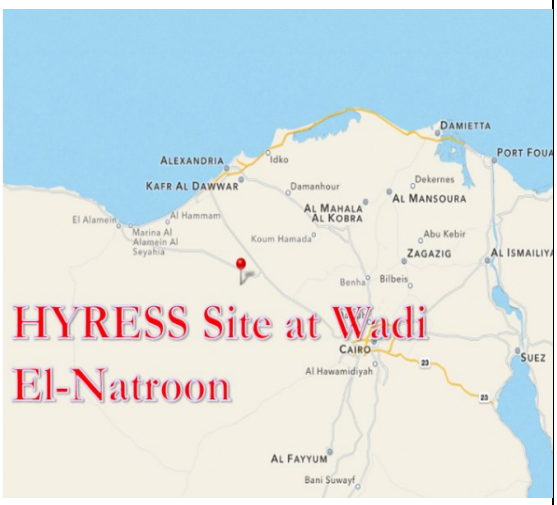
Energy Efficient Appliances Usage: Solar Energy Center at the Faculty of Agriculture (Alexandria University)



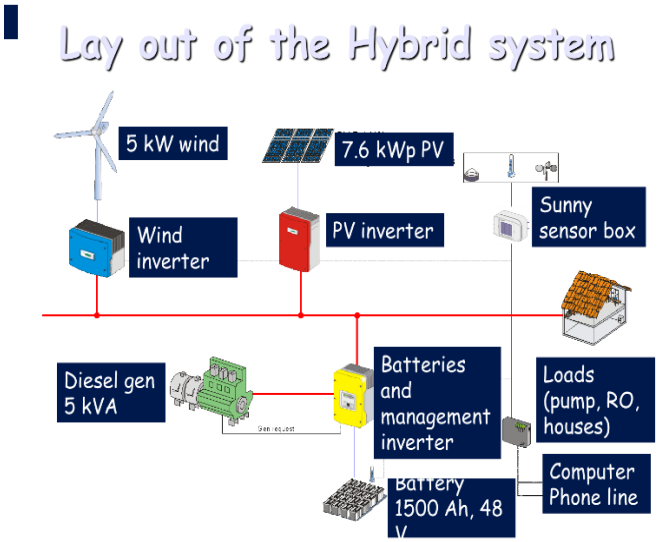
Solar Energy Center at the Faculty of Agriculture (Alexandria University)

Solar Energy Center at the Faculty of Agriculture (Alexandria University)

100 KW Hybrid Wind/PV System (50 KW PV and 50 KW Wind)



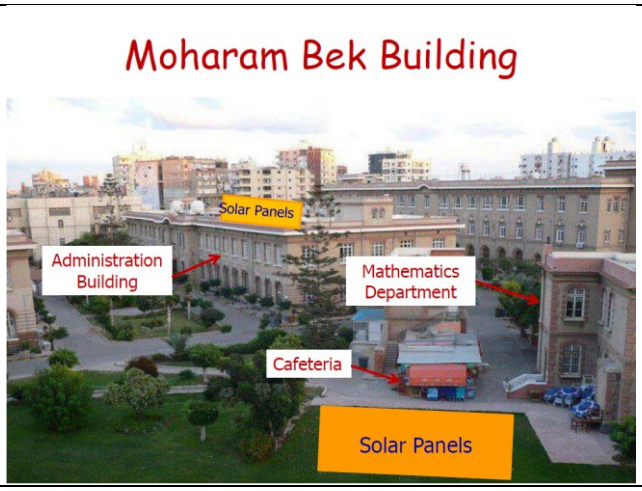
HYRESS Site at Wadi El-Natroon, Solar Energy Center at the Faculty of Agriculture (Alexandria University)



The modular hybrid power supply concept proposes the coupling of all sources of energy, storage media and loads on the AC-side (Faculty of Agriculture, Alexandria University).

BIPV Façade Brise-Soleil System
Solar Energy Project at the Faculty of Science (Alexandria University)

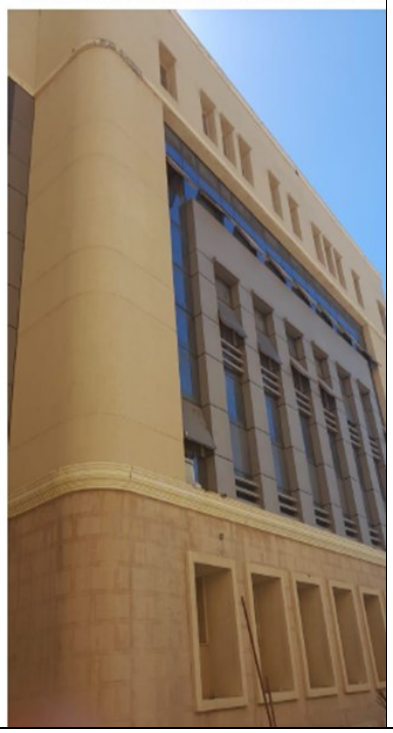
BIPV Garden Pergola, Faculty of Science in Moharram Bek (Alexandria University)



BIPV Roof Pergola, Faculty of Science in Moharram Bek (Alexandria University)

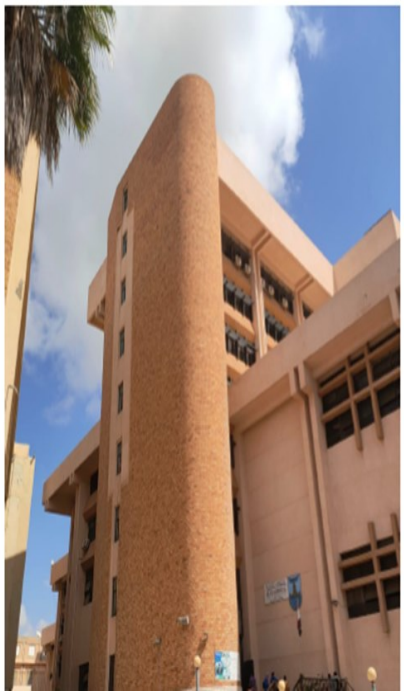
Solar photovoltaic with a capacity of 220 kilowatts on the 2000 m^2 roof top of the building of the Mechanical Engineering Department at the Faculty of Engineering

Photos of Mouwasat International Education Buildi



Photes of Faculty of Engineering SSP Building

Photos of Faculty of Education Building



The European Union project to convert several buildings of Alexandria University into green buildings by reducing energy consumption in addition to establishing solar-powered power stations: the Specialized Scientific Programs Building at the Faculty of Engineering, the Faculty of Education Building within the Literary Colleges Complex, and the Manchester Building at the Faculty of Medicine.

Description:

The university's interest in energy use and climate change issues is the primary indicator. There are other indicators such as the use of energy-saving devices, implementation of smart building, renewable energy use policy, total electricity use, energy conservation program, green building elements, climate change adaptation and mitigation program, and greenhouse gas emissions reduction policy and carbon footprint. Within the framework of these indicators, the university is expected to increase the efforts made in the field of energy efficiency in its buildings and to pay more attention to natural and energy resources.

Energy conservation program for Alexandria University:

1. Using solar energy in most colleges and the university administration building.
2. Replace fluorescent and yellow lamps with energy-saving LED lamps.
3. Using sensors for lighting when people pass by and closing them automatically
4. Relying on natural lighting and ventilation.
5. Using mirrors in microscopes in laboratories instead of electricity.
6. Rationalizing the use of vehicles and means of transportation.
7. Digital transformation and transforming Alexandria University into an electronic university that does not rely on paper except to a limited extent.
8. Purchase environmentally friendly and energy-saving laboratory equipment, air conditioners, and computers.

Alexandria University intends to realize further energy savings by paying close attention to energy management. All the faculties and institutes of the university realize their own energy-saving potential by means of LED lighting and the deployment of sustainable technology.

Alexandria University Project on using LEDs as Energy-Efficient Bulbs:

Within the framework of the University's keenness to transform into a green, environmentally friendly university that works to enhance its resources and rationalize energy consumption, the Department of Community Service Development has launched a project for the total transformation of the used LED bulbs instead of the fluorescent ones. The light-emitting diode (LED) bulbs are more efficient, and energy-saving compared to fluorescent bulbs, with a relatively longer life span.

The project has been implemented in phases since 2019 based on the preparation of an inventory of the total numbers needed for all faculties and institutes of the university. The first quarter, the numbers required, which represents the types of 60 cm, 120 cm and 9 watts' bulbs, has been spent and installed, which are almost 30%. In parallel, appropriate measures were taken to dispose of the lost fluorescent lamps through one of the companies concerned with safe disposal. The second step required the purchase and transformation of 37% of the total needs of the faculties and institutes of the university. The third step required the purchase and transformation of 25% of the total needs of the faculties and institutes of the university. During the last phase, the transformation of all remaining LED bulbs was performed.

The Table below summarizes the total number of LED bulbs that were required for complete transformation into using green energy source along with the percentage of the bulbs that were already replaced over the last 4 years.

Attached are Tables 1, 2, 3 showing the number of bulbs that were replaced with LED bulbs in the academic year 2021/2022 and the academic year 2022/2023 for the complete transition to using a green energy source.

Table 1: Replacing fluorescent bulbs with energy-saving and energy-saving LED bulbs 2021/2022

مركز المعلومات والتوثيق ودعم اتخاذ القرار
Information, Documentary and Decision Support Cente

	Entity	LED bulbs	Computers	Airconditions	photocopiers	Surveillance Cameras	Fire extinguishers	Fire Alarm Systems	Fire hydrants	Bathroom Faucets
1	General Administration	2000	403	142	88	37	177	1	10	100
2	General Administration of University Cities	5500	130	234	19	23	729	0	0	55
3	General Administration of Libraries	0	75	9	5	16	168	1	0	8
4	Faculty of Dentistry	4600	169	269	36	61	166	1	0	485
5	Faculty of Pharmacy	5700	444	165	34	85	271	0	0	125
6	Faculty of Medicine	7000	761	186	96	86	571	1	45	10
7	Faculty of Veterinary Medicine	68	238	42	40	4	160	0	0	1
8	Faculty of Nursing	1050	225	92	34	40	155	0	0	100
9	Faculty of Science	3290	500	217	42	32	464	1	65	10
10	Faculty of Engineering	8610	312	23	21	39	375	1	0	42
11	Faculty of Tourism and Hotels	350	122	43	9	0	85	0	0	6
12	Faculty of fine Arts	0	107	53	21	0	300	0	0	10
13	Faculty of Physical Education for Girls	294	193	26	27	25	343	1	4	10
14	Faculty of Physical Education for Boys	100	165	65	20	0	145	0	0	50
15	Faculty of Economics and Political Science	2200	49	19	20	0	50	1	0	10
16	& Faculty of Computer Information Sciences	377	150	41	5	0	51	1	0	12
17	Faculty of Education for Early Childhood	662	50	30	9	0	53	0	14	10
18	Faculty of Law	1300	243	170	65	0	172	1	0	37
19	Faculty of Education	2500	300	73	11	30	134	0	33	10
20	Faculty of Commerce	13404	724	227	25	25	150	0	0	176
21	Faculty of Agriculture Shatby	3300	353	40	45	42	205	0	0	76
22	Faculty of Agriculture Saba Pasha	0	0	0	0	0	0	0	0	0
23	Faculty of Arts	2200	239	126	24	48	83	0	0	22
24	Faculty of Specific Education	344	102	29	20	6	62	0	0	14
25	Medical Research Institute	3256	333	353	17	37	193	0	0	10
26	Institue of Graduate Studies & Research	870	182	80	18	30	116	1	0	216
27	High Institute of Public Health	0	0	0	0	0	0	0	0	0
Total		68975	6376	2754	751	666	5378	11	171	1605

General Manager
Dr. Nadira Sobhy Mohamed
Nadira 17-10-22

Table 2: Replacing fluorescent bulbs with energy-saving and energy-saving LED bulbs 2022/2023

مركز المعلومات والتوثيق ودعم اتخاذ القرار
Information, Documentary and Decision Support Cente

Material components 2022-2023

M	The side	LED bulbs (provided (not provided) /	Computers	Air Conditions	Photocopier	Security cameras	Fire Extinguishers	Fire Alarm System	Fire Hydrants	Water Taps
1	Public Administration	2075	450	139	83	47	202	1	9	130
2	General administration of university cities	5500	130	236	19	23	729	0	0	55
3	General Administration of Library Affairs	0	75	9	5	16	168	1	0	8
4	Faculty of Dentistry	5678	148	314	39	79	184	1		485
5	faculty of Pharmacy	6540	352	165	24	80	271	0	0	10
6	Faculty of medicine	6000	1599	853	124	95	571	1	33	16
7	College of Veterinary Medicine	1327	0	0	0	0	160	0	0	10
8	College of Nursing	1050	225	92	34	40	155	0	0	100
9	College of Science	8785	314	195	72	35	302	1	50	428
10	College of Engineering	8123	270	172	31	39	516	8	0	45
11	Faculty of Tourism and Hotels	500	158	54	10	0	83	0	0	8
12	College of Fine Arts	0	103	62	20	0	300	1	0	84
13	College of Physical Education - Girls	200	256	44	26	26	93	1	4	200
14	College of Physical Education - Boys	125	165	65	20	0	145	0	0	50
15	Faculty of Economic Studies and Political Sciences	2216	49	19	19	0	48	0	11	0
16	College of Computers and Data Sciences	0	150	0	5	0	0	0	0	0
17	College of Early Childhood Education	0	84	21	9	0	66	0	0	14
18	collage of rights	1800	236	165	22	0	172	1	1	1
19	Faculty of Education	1550	300	83	12	30	205	1	0	120
20	Commerce College	13404	724	227	30	25	150	0	0	176
21	Faculty of Agriculture, Shatby	3300	367	43	37	35	212	6	0	84
22	Faculty of Agriculture - Sabapasha	1400	127	49	14	16	178	1	9	105
23	college of Literature	2650	350	152	19	54	123	0	0	464
24	College education quality	288	98	28	18	4	60	0	0	14
25	Medical Research Institute	5800	208	148	19	39	180	0	0	260
26	Institute of Graduate Studies and Research	3404	182	80	18	8	114	1	0	216
27	Higher Institute of Public Health	0	0	0	0	0	0	0	0	0
	Total	38160	3827	1389	319	271	2648	15	25	1841

General Manager
Information,Documentation&Decision support Center

Nadira 12-10-2023

Table 3: Replacing fluorescent bulbs with energy-saving and energy-saving LED bulbs 2023/2024

مركز المعلومات والتوثيق ودعم اتخاذ القرار
Information, Documentary and Decision Support Center

Physical & Energy Ingredients-Statistical Statement 2024

No	Faculties & Institutes	Led Bulbs	Computers	Airconditions	Photocopiers	Cameras Surveillance	Extinguishers Fire	Fire Hydrants	Fire Alarm System
1	Faculty of Education	1412	168	60	7	35	66	33	0
2	Faculty of Pharmacy	6540	352	170	24	80	271	750	0
3	Institute of Graduate Studies & Research	870	182	80	18	3	116	216	1
4	Faculty of Business	5697	692	310	30	36	196	187	1
5	Faculty of Early Childhood	150	55	30	14	0	82	22	0
6	Faculty of Economic Studies & Political Science	2300	59	13	14	0	0	0	0
7	Faculty of Tourism & Hotels	600	74	54	9	0	83	6	0
8	Faculty of Nursing	150	225	92	34	40	123	40	1
9	Faculty of Agriculture	3300	367	65	41	4	207	8	6
10	Medical Research Institute	5000	179	160	18	38	226	182	0
11	Faculty of Physical Education for Boys	155	165	65	20	36	147	70	0
12	Faculty of Science	5355	314	195	72	35	302	478	1
13	Faculty of Computer & Information Sciences	0	150	0	5	0	0	0	0
14	Faculty of Physical Education for Girls	450	210	40	30	25	343	4	1
15	Faculty of Arts	1999	204	90	20	47	123	150	0
16	Faculty of Veterinary Medicine	600	173	40	31	0	140	0	0
17	Faculty of Specific Education	283	63	29	21	0	72	14	0
18	Faculty of Engineering	5500	450	228	18	39	513	700	1
19	Faculty of Agriculture Saba-Pasha	670	70	45	12	16	175	9	0
20	Faculty of Dentistry	6690	127	314	39	57	166	485	1
21	Faculty of Medicine	25000	895	715	124	146	590	37	1
22	High Institute of Public Health	189	196	92	15	12	102	12	1
23	*Faculty of Law	1000	256	165	22	0	172	2	1
24	*Faculty of Fine Arts	0	103	62	20	0	301	84	0

*Previous Year Data
This statement is based on what we have received to date

Acting Assistant
University Secretary for Administrative Affairs
Dr. Nadira Sobhy Mohamed

Alexandria University Program to reduce Electricity consumption from Air Conditioners and electric devices such as Computers, printers, photocopiers, surveillance cameras.

1. All newly purchased AC are inverter AC to reduce the electricity consumption (attached pdf file).
2. The new electric devices such as Computers, printers, photocopiers, surveillance cameras are energy efficient devices (attached pdf file).
3. All electronic devises must be shut down at night, when not used.
4. Passive Infrared (PIR) Sensors were implemented in some Faculties for motion-activated lighting to detect changes in heat signatures when someone or something moves within the sensor's range. These sensors will be implemented in phases in for all faculties and institutes of the university.
5. Regular Maintenance of all devices.
6. The thermostats of the air conditioner are set at 25°C, and direct sunlight is avoided by using sun protection curtains.

Solar Energy Center at the Faculty of Agriculture (Alexandria University)
Hybrid Renewable Energy Systems to Supply Services in Rural Settlements of Mediterranean Partner Countries.

The services provided by the center:

1) **Research and development**: Encouraging applied research on renewable energy at AU and through collaborations with other national and international universities. Development of hybrid systems in renewable energy and its uses in water pumping and water desalination and development of remote and desert areas. Development of research in energy from biomass and waste. Development of thermal uses of solar energy.
2) **Consultations:** Various consultations in renewable energy systems, especially hybrid systems, drying and solar heating.
3) **Education and Training:** Supporting the renewable energy education at AU. Developing and delivering courses, e-learning, workshops, training courses, and conferences on various renewable energy systems.
4) Serving the Egyptian community by providing all renewable energy information to the public.

Equipment at the center:

1) The center has many devices for different applications of renewable energy.
2) A hybrid system to generate electricity from the sun with a capacity of about 130 kilowatts.
3) E-learning courses on the site.

The center has two units isolated from the network:
- A hybrid unit with 7 kW photovoltaic cells and a 5 kW wind turbine.
- A hybrid unit with 50 KW photovoltaic cells and 50 KW wind turbines, all of which are used in student training and research by graduate students and faculty members.

There is also a Renewable Energy Center at the Agricultural Research and Experimentation Station in Abis. The center's capacity is 130 kilowatt-hours and is connected to the electricity grid.

System Application	Solar System power (kWp)	Air Turbine power	Energy (kWh)
Wadi El-Natroon 1, Photovoltaic cells	7		7000
Wadi El-Natroon 2, Photovoltaic cells	50		50,000
Wadi El-Natroon 1, Air turbines		5	5000
Wadi El-Natroon 2, Air turbines		50	50,000
Abis Campus			130
University Main building			20
	Total Power (kWh)		112,150

The Faculty of Science:

Research Project: Development and implementation of decentralized solar-energy-related innovative technologies for public buildings, in the Mediterranean Basin. One of the most important outcomes of the project was the generation of solar photovoltaic energy with a capacity of 49,620 kilowatts per year.

System Application	Number of modules	Solar System kWp	Power (kWh)
BIPV façade brise-soleil	120	17.28	26350
BIPV garden pergola	90	8.1	23270
BIPV roof pergola	30	4.1	
	Total Power (kWh)		49,620

University administration building

The project of "supplying, installing and operating the photovoltaic solar plant with a capacity of 20.1 kW above the administration building of Alexandria University in Shatby was launched by the Arab Renewable Energy Company, on 2/14/2020. The capacity of the station per month is 20.1 kW, while the capacity consumed from the building is 255 kW / month, meaning that the station provides within 8% of the total monthly consumption. Total Solar energy per year = **241.2 KWh**.

Higher Institute of Public Profession

The Institute has two initiatives to exploit solar energy at the Institute through two units of photovoltaic cells (50 watts each) that are currently installed and are exploited to provide the electrical energy necessary to operate the Ultra-Filtration unit located in one of the laboratories of the Department of Materials Science for educational purpose. Moreover, five units of photovoltaic cells (260 watts each) were installed to operate the discussion room at the Institute and to provide it with sufficient energy for lighting purposes and to operate its display device. Total Solar energy per year = **360 KWh**.

The European Union project to convert several buildings of Alexandria University into green buildings by reducing energy consumption in addition to establishing solar-powered power stations in 2023-2024

- In light of the keenness to rationalize energy consumption in university buildings and the general trend to increase the percentage of reliance on new and renewable sources in electricity production, and in cooperation with the European Union, the European Union funding was accepted for a project to transform some buildings of Alexandria University into green buildings by reducing energy consumption in addition to constructing Electrical power stations powered by solar energy on the roofs of some qualified faculty and institute buildings suitable for this purpose.
- Accordingly, three buildings belonging to the university's faculties were chosen as a first stage to study the feasibility of applying the project to them in terms of the building's ability to bear the weight of solar stations to produce electricity, as well as studying the spaces available for building these stations and the extent of those spaces' exposure to solar radiation throughout the day. The opportunities available to reduce reliance on usual energy sources were also studied in terms of using more efficient lighting, increasing reliance on natural lighting during the day, and reducing the building's air conditioning loads.

- After research and review, the specialized scientific programs will be developed in the Faculty of Engineering, the Faculty of Education building within the Literary faculties Complex, and the Manchester Building in the Faculty of Medicine, which were chosen due to the recent construction of these buildings and their ability to accommodate the proposed development in terms of the electrical load network and the development of air conditioning systems and water heating systems used in laboratories and bathrooms.
- These buildings were visited and their suitability for the project was evaluated. The current electricity consumption and the possibility of covering these loads with electricity generated from solar energy were studied. The roof areas facing south and suitable for establishing solar stations were inspected and raised. The available roof area in the Specialized Scientific Programs Building at the Faculty of Engineering, Alexandria University, was 2,400 square meters. It can be used to create a solar station with an area of 1,000 square meters with a capacity of **120 kilowatts**, so that the station will be able to generate **360 megawatt hours** of electricity annually. As for the Faculty of Education building, the total area of the building was 4,000 square meters, and the appropriate spaces for building the station accommodate 1,000 square meters of solar cells with a capacity of **120 kilowatts**, so that the station is capable of generating **360 megawatt hours** of electricity annually, and for the Manchester building at the Faculty of Medicine, 1,200 square meters is capable of accommodating a solar power station with an area of 800 square meters. With a capacity of **96 kilowatts**, the station is capable of generating **288 megawatt hours** of electricity annually. These stations also contribute to reducing carbon dioxide emissions by a total of approximately 214 tons annually. The total expected cost of the project is about 300,000 euros.
- The time to recover the capital was estimated through providing the electricity consumed in the three buildings for approximately seven years from the date the stations entered service at full capacity, considering the periodic maintenance necessary to continue the station's operation with the greatest possible efficiency. Detailed reports were also prepared for each building and submitted to the general coordinator of the project, for review and to take the necessary steps to start this vital project, which is an important step in strengthening the efforts of the Egyptian state towards switching to renewable energy and reducing dependence on fossil fuels that have a negative impact on the environment.

New European Union Project for Renewable energy production (Solar panels)

No	Location	Production (in kWh)
1	Faculty of Engineering	360,000
2	Faculty of Education	360,000
3	Faculty of Medicine	288,000
	Total	1,008,000

The Faculty of Engineering

The implantation of the new Solar Station is completed. The implementation of the solar photovoltaic panels was performed in December 2022 with a capacity of **220** kilowatts on the 2000 m^2 roof top of the building of the Mechanical Engineering Department at the Faculty of Engineering.

Alexandria University have generalized this initiative in some of the faculties of Alexandria University in gradual stages.

The total Renewable energy production per year in Alexandria University after the implementation of the European Union project to convert several buildings of Alexandria University into green buildings

No	Renewable Energy	Production (in kWh)
1	Solar panel	57,150 + 49,620 + 241.2 + 360 + 220 = 107,591.2
2	Windmill	55,000
3	New Solar panels in 2023-2024	360,000 + 360,000 + 288,000
	Total	1,170,591.2

Alexandria University new initiative is to use all the roofs of Alexandria University buildings that are suitable for the implantation of the new Solar Station is in progress.

Fab Lab Project (Alexandria University)

The overall goal of the project is to develop the circular and creative economy model by creating an innovation place equipped with machines Low Tech in Alexandria is hosted by Alexandria University. This place will play a role in creating local dynamism Transversal to become a crossroads between different audiences and actors from different backgrounds. To connect waste collection Plastic and its evaluation. Horizons Solidarités and the University of Corsica, in partnership with their peers in Alexandria, based on their experience in Fab Lab Corte, conduct experiments on recreating value for plastic in Alexandria. The goal is to connect all actors from assembly through training to development and dissemination.

The scope of work in the project

- **Environment, climate, and energy**
- **Education, social aspect, and research**

These goals will be implemented through the establishment of a FabLab within Alexandria University, which is a space for innovation. Derives place this innovation is energized by a generation that has innovative ideas in the fields of environment, citizenship, and culture. This revival is embodied in women and the men who are partners in the project. The high skills of Alexandria University and Senghor University, Francophone operator in Alexandria, ensures the long-term commitment of their students and the sustainability of the local dynamism. Implementation benefits from facilities Headquarters provided by Alexandria University Project Engine. VSI contributes to the unification of links between regions. Project depends on the Alexandria Business Association (ABA), a trade organization that invests in creating startups in the circular economy and selling finished products. A multi-representative consortium from both sides of the Mediterranean could be formed from these dynamics that will support the project over time.

The French side confirmed that the Fab Lab at the University of Corsica in France has become a very successful experiment on the economic and environmental levels, and is considered one of the most important strategic projects in France and receives the attention of the French Presidency and the Mediterranean region. The French side explained that it seeks to benefit from the expertise of Alexandria University, and that they are fully prepared. To provide full support for the project and coordinate with the relevant authorities in France for the success of this experiment, which will benefit both sides on the environmental, economic and environmental levels.

Led by the South Region and its partner Alexandria Governorate, this project aims to be part of an inter-regional dynamic with the participation of the **Corsican community**. This project is part of the “Zero Plastic Waste” regional strategy in the Mediterranean. It is also part of the dynamics of the memorandum signed on September 5, 2022 between the region and IUCN Med on the occasion of the

World Nature Congress in Marseille, which aims to develop joint actions for the benefit of a Mediterranean region without plastic. On the other hand, this project is part of the context of the twenty-seventh session of the Conference of the Parties held in Egypt. It joins the global effort undertaken by the Egyptian state in order to effectively combat the effects of climate change. Its realization in Alexandria makes it possible to structure a permanent cooperation with the governorate around a symbolic project that will, in the long term, enhance the social impact of research and university cooperation. In addition, this project promotes decentralized cooperation between the three regions.

Indeed, supporting this project will highlight the role of the region, Alexandria Governorate, and Corsica in supporting innovative solutions to adapt regions to changing Climate. The strategy is based on four pillars: **digital communication in three languages**, **the production of digital communication media intended for the general public**, **organizing competitions for artists and architects from the two countries to enhance the innovative role Fab Lab**, **and discussions of ideas supported by all partners as a regional facilitator**. In addition, a dedication ceremony for the Fab Lab will be held in the presence of elected officials, governors, university presidents, and will be followed by the symposium in Alexandria is a continuation of COP 27, which was held in November 2022.

A system for monitoring and evaluating the project will be developed by members of the steering committee with the support of specialists. The monitoring and evaluation system will include the quantitative, qualitative, and financial components of the project. It will make it possible to measure the effectiveness of this place of innovation as a driver of sustainable and inclusive development at the local and Mediterranean levels. Indicators for this monitoring and evaluation system will be identified and validated by the Steering Committee at the beginning of the project to verify throughout the implementation period whether the results are consistent expected meets set goals. Answers will need to be provided to the items specified in the reference system approved by the Steering Committee.

Link for Fab Lab Project
http://alexu.edu.eg/index.php/%D8%A3%D8%AD%D8%AF%D8%AB-%D8%A7%D9%84%D8%A3%D8%AE%D8%A8%D8%A7%D8%B1/6840-%D8%AC%D8%A7%D9%85%D8%B9%D8%A9-%D8%A7%D9%84%D8%A5%D8%B3%D9%83%D9%86%D8%AF%D8%B1%D9%8A%D8%A9-%D8%AA%D8%A8%D8%AD%D8%AB-%D8%A5%D9%86%D8%B4%D8%A7%D8%A1-%D9%85%D8%B9%D9%85%D9%84

Additional evidence link: https://alexu.edu.eg/index.php/about-us-ar

Link for LED lighting:
https://alexu.edu.eg/index.php/?option=com_content&view=article&id=5935&catid=21&lang=ar-AA

Link for Solar Energy:
https://alexu.edu.eg/index.php/?option=com_content&view=article&id=5936&catid=21&lang=ar-AA

Link for Sustainable Development: https://alexu.edu.eg/index.php/en/sustainable-development
https://alexu.edu.eg/index.php/en/2015-11-24-10-38-07/ranking?id=6011
http://sustainability.alexu.edu.eg/
Link for Green University:
https://alexu.edu.eg/index.php/?option=com_content&view=article&id=5932&catid=21&lang=ar-AA
Alexandria University Video: It shows an overview of Alexandria University Campus.
https://alexuuni-my.sharepoint.com/:f:/g/personal/v-presenv_alexu_edu_eg/Eo2qOnh3ty1GvbnrSrSKabUBuh-6L5AAtEx_f94cd2035Q?e=QMvtz5

نائب رئيس الجامعة
لشئون خدمة المجتمع وتنمية البيئة

VICE PRESIDENT
Community Service & Environment Development

Energy Efficient Appliances Usage

Alexandria University Project on using LEDs as Energy-Efficient Bulbs (2019-2024):

Within the framework of the University's keenness to transform into a green, environmentally friendly university that works to enhance its resources and rationalize energy consumption, the Department of Community Service Development has launched a project for the total transformation of the used LED bulbs instead of the fluorescent ones. The light-emitting diode (LED) bulbs are more efficient, and energy-saving compared to fluorescent bulbs, with a relatively longer life span.

The project has been implemented in phases since 2019 based on the preparation of an inventory of the total numbers needed for all faculties and institutes of the university. The first quarter, the numbers required, which represents the types of 60 cm, 120 cm and 9 watts' bulbs, has been spent and installed, which are almost 30%. In parallel, appropriate measures were taken to dispose of the lost fluorescent lamps through one of the companies concerned with safe disposal. The second step required the purchase and transformation of 37% of the total needs of the faculties and institutes of the university. The third step required the purchase and transformation of 25% of the total needs of the faculties and institutes of the university.

During the current phase we are processing the last step of purchasing and transformation of all remaining LED bulbs (attached pdf file).

The Table below summarizes the total number of LED bulbs that are required for complete transformation into using green energy source along with the percentage of the bulbs that were already replaced over the last 4 years.

LED 60 cm

LED Lamps	Total Number required	Total number energy Efficient appliances (replaced)	Percentage
2019	39198	10142	25.9%
2020		12504	31.9
2021		12900	32.9%
2022		3652	9.3%
		Total Percentage	**100%**

LED 120 cm

LED Lamps	Total Number required	Total number energy Efficient appliances (replaced)	Percentage
2019	30799	9874	32.1%
2020		12500	40.6%
2021		6221	20.2%
2022		2204	7.1%
		Total Percentage	**100%**

LED 9 watts

LED Lamps	Total Number required	Total number energy Efficient appliances (replaced)	Percentage
2019	5190	1678	32.3%
2020		1998	38.5%
2021		1282	24.7%

الإسكندرية ٢١٥٢٦ – جمهورية مصر العربية – الشاطبي تليفون: ٥٩١٥٨٤٨(٢٠٣) فاكس : ٥٩٠٢٧١٥(٢٠٣)
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2022		232	4.5%
		Total Percentage	**100%**

Alexandria University Program to reduce Electricity consumption from Air Conditioners and electric devices such as Computers, printers, lab apparatus.

1. All newly purchased AC are inverter AC to reduce the electricity consumption.
2. The new electric devices such as Computers, printers, lab apparatus are energy efficient devices.
3. All electronic devises must be shut down at night, when not used.
4. Regular Maintenance of all devices.
5. The thermostats of the air conditioner are set at 25°C, and direct sunlight is avoided by using sun protection curtains.

Fab Lab Project (Alexandria University)

The overall goal of the project is to develop the circular and creative economy model by creating an innovation place equipped with machines Low Tech in Alexandria is hosted by Alexandria University. This place will play a role in creating local dynamism Transversal to become a crossroads between different audiences and actors from different backgrounds. To connect waste collection Plastic and its evaluation. Horizons Solidarités and the University of Corsica, in partnership with their peers in Alexandria, based on their experience in Fab Lab Corte, conduct experiments on recreating value for plastic in Alexandria. The goal is to connect all actors from assembly through training to development and dissemination.

The scope of work in the project

- **Environment, climate, and energy**
- **Education, social aspect, and research**

Sincerely,

Prof. Said Mohamed Allam
Vice PRESIDENT
Community Service & Environment Development
Alexandria University