

## **7.4.4 University inform and support government in clean energy and energy-efficient technology policy development**

### **Alexandria University Technology Incubator for Smart Systems (AUTISS)**

#### **About**

Alexandria University Technology Incubator for Smart Systems (AUTISS) was accredited by the Ministry of Higher Education in 2020 to be established at Smart Critical Infrastructure (SmartCI) Research Center, Alexandria University (AlexU).

AUTISS aims to nurture the culture of innovation at campus among the university community and to create value added services for researchers and entrepreneurs.

AUTISS is mainly interested in using Smart systems and modern technology for the development of different infrastructure systems (e.g., education, transportation, healthcare...etc.).

#### **AUTISS Vision**

AUTISS aims to be a hub that fosters synergy between the academia and the industry to fuel entrepreneurial spirit among students to help them to be self-reliant and contribute to the economic development and nation building.

#### **AUTISS Mission**

- To build an ecosystem to incubate and support innovative ideas in Alexandria and the surrounding areas to enact wealth and employment action through successful startups.
- To create entrepreneurial opportunities for students, graduates, faculty members and researchers.
- To support emerging technologies that are useful to enter the market.
- To nurture technology and knowledge-based ventures through their start-up phase by providing the necessary support.
- To assist in commercialization of innovative ideas from students and researchers.

#### **Areas of Interest**

AUTISS supports entrepreneurship and provides a set of technical and business-related services to startups that deliver technological products or services for the development of the different infrastructure systems. Current topics of interest, based on the international trends and Egypt's 2030 strategy, includes but are not limited to:

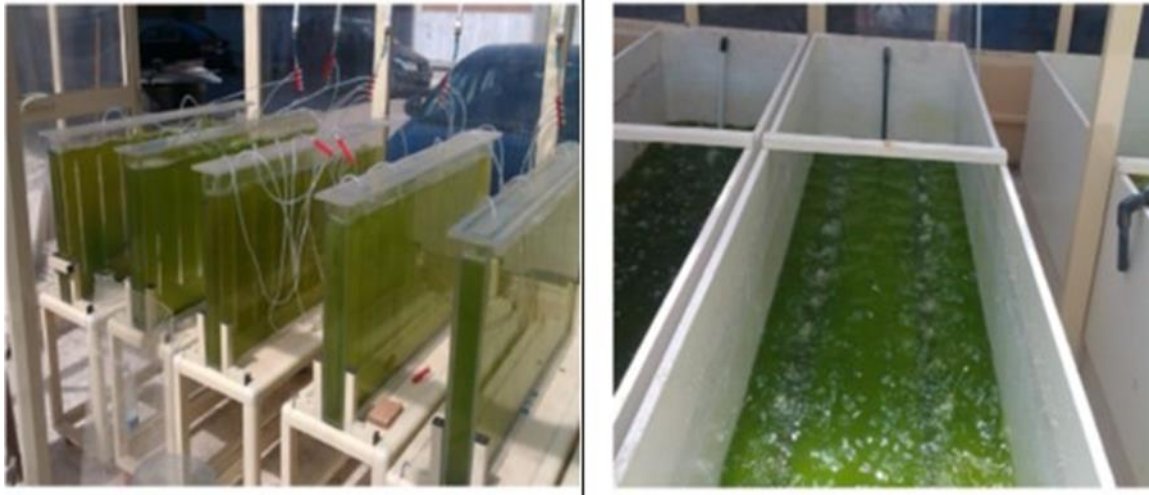
- Digitization of different services
- Smart health services/products
- Fintech applications
- Smart business solutions
- Smart educational services/products
- Biomedical engineering
- New technologies in the field of Energy, Agriculture and Food industry

### **Research Project in Faculty of Science:**

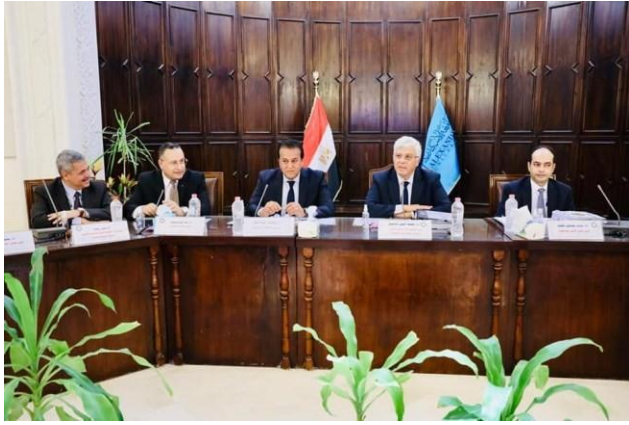
#### **Production of Bio-Diesel from Algae in Selected Mediterranean Countries: Med-Algae Project**

The project objective is to explore:

- 1- The development of microalgae-based biodiesel production and other valuable products in six Mediterranean countries (Cyprus, Egypt, Greece, Italy, Lebanon and Malta).
- 2- The current level of technology, the relevant market structure, and the governmental and environmental boundaries will be mapped in the participating countries, in order to identify the most promising strategies in each country.



- ☐ The Minister of Higher Education chairs the meeting of the Supreme Council of Universities at Alexandria University supporting the “Egypt Digital Cubs” initiative organized by the Ministry of Communications and Information Technology, by allowing the use of electronic testing laboratories spread throughout all public universities, to conduct admission tests for applicants, by activating a tripartite cooperation protocol between the Ministry of Higher Education and Scientific Research, the Ministry of Communications and Information Technology, and the presidents of public universities. The Ministry launched the green financing initiative for research, development and innovation to support applied projects that contribute to solving environmental problems, nature conservation, Energy Efficient Appliances Usage 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.

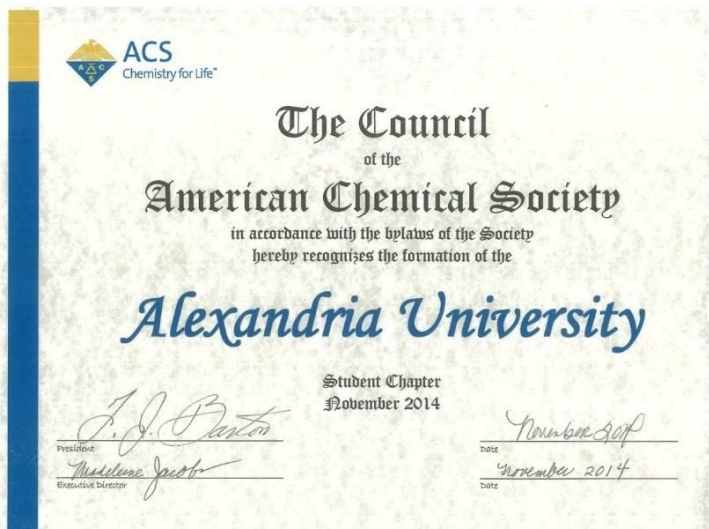
The light-emitting diode (LED) bulbs are more efficient, and energy-saving compared to fluorescent bulbs, with a relatively longer life span.

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.

### **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 (detailed in evidence file 2.1).
3. All electronic devices 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.

**International Collaboration and Partnerships is performed by collaborating with other countries and institutions to share knowledge, technology, and expertise on GHG emission reduction.**



### Recognition

#### Student chapter awards:

- Commendable Award 2018
- Honorable Award 2019
- Outstanding Award 2023
- Green Chemistry Award 2024
- Outstanding Award 2024



Project “Integrating Sustainable Development Goals into Universities for Better Management of Climate Change,” which is funded by the European Union within the Erasmus Plus program (2021-2024) with a budget of 15 million pounds, via the electronic platform, and its work continued over two days. Alexandria University is leading the project, which includes 7 other partners, from the European Union, namely the University of Aveiro in Portugal, the University of Sassari in Italy, the University of Valencia in Spain, the Euro-Mediterranean University from Slovenia, and from Egypt the Arab Academy for Science, Technology and Maritime Transport, Zewail University, and Heliopolis University. The project aims to enhance the capabilities of Egyptian universities in terms of raising awareness of sustainable development goals for university members, integrating sustainable development goals into strategic plans and university policies, and transforming universities into environmentally sustainable universities.



The logo for INVOLVE, featuring the word "INVOLVE" in a bold, blue, sans-serif font. The letter "O" is replaced by a circular graphic composed of multiple colored segments (red, orange, yellow, green, blue, purple) arranged in a ring.



## Policy on Energy and water sustainable use

Alexandria university is Committed to pursuing sustainable development within and through the university and to reassessing higher education and its role in the transition to more sustainable societies. This includes building synergies and collaboration in the search for effective and innovative approaches to solving today's as well as future sustainable development challenges.

The university ensures that all renovations and establishment of new buildings are following energy efficiency standards and water conservation strategies.

The university ensures divesting investments and purchases from Carbon-intensive energy industries particularly coal and oil.

The university through its faculties is committed to maximise water reuse across the university buildings and through all services provided in the process of education and research

The objective of this statement is Commitment to offering an open, interactive and collaborative forum for discussion and action, to raise awareness and advocate for changes needed changes in higher education to best serve the goals of sustainable development, (SDGs) as well as building international linkages and cooperation on the basis of core values of academic freedom, institutional autonomy and related local and global responsibilities to society.

Being uncompliant with the commitment to pursue sustainable development issue will be regarded as interfering with personal development of the students, and the university administration will act accordingly

Policy created September 2019

Policy reviewed October 2022

**Prof. Abdel Aziz Konsowa**

University President

A handwritten signature in blue ink that reads "A. Konsowa" with a flourish at the end.





#### **Alexandria University Sustainable Investment policy.**

A sustainable investment policy refers to the set of guidelines and principles that Alexandria University . The policy aims to align the organization's investment activities with its sustainability goals and values.

Implementing a sustainable investment policy align investments strategies of the university with sustainable development Goals, and promotes responsible investing practices, and contribute to the transition to a more sustainable and resilient economy. It also attracts socially and environmentally conscious investors and stakeholders who value sustainable investment practices.

Important elements include:

1. **ESG Integration:** The policy should emphasize the integration of ESG factors into the investment decision-making process. This involves considering environmental and social risks and opportunities, as well as governance practices of potential investments. ESG analysis can help identify companies or projects that demonstrate strong sustainability performance.
2. **Sustainable objectives:** The policy defines the university's sustainability objectives and priorities focusing on on specific ESG themes, such as climate change, renewable energy, social justice, or diversity and inclusion. Such objectives help guide investment strategies and ensure consistency with sustainability goals .
3. **Engagement and Stewardship:** The policy outlines the organization's commitment to active engagement with investee companies to encourage improved ESG practices. This includes voting on shareholder resolutions, engaging in dialogues, and exercising influence to promote positive change. Stewardship activities help drive sustainable behavior and align investee companies with sustainability goals.
4. **Ongoing review and monitoring:** The policy includes procedures for ongoing monitoring and review of investments to ensure they continue to meet sustainability criteria. Regular assessments of portfolio performance, ESG risks, and evolving sustainability trends help maintain alignment with the university's strategic objectives .
5. **Positive Impact investments:** The policy ensures commitment to investing in projects that generate positive environmental and social impacts. This could include investing in renewable energy projects in new buildings of the universities and in the upgrade process taking place, , clean technologies in the use of energy and water, sustainable infrastructure with green areas .
6. **Reporting and transparency:** The policy encourages collaboration with the industry sector, and stakeholders to advance sustainable investment practices. This involves

sharing best practices, participating in initiatives, and supporting industry-wide efforts to promote sustainability.

Adopting this sustainable investment policy, the university contributes to positive social and environmental outcomes while generating financial returns. It demonstrates a commitment to responsible investing and can attract stakeholders who value sustainability.

Following this strategy, the university has established several investment projects e.g. technology park for incubation and acceleration, Alexandria National university, International university with two branches in Chad and south Sudan, as well as International Branch Campuses (IBC).

University president Endorsement



Prof. Abdel Aziz Konsowa





### **Alexandria University Sustainable Procurement/purchasing policy.**

A sustainable procurement or purchasing policy refers to the set of guidelines and principles that Alexandria University follows when procuring goods, services, or works in a sustainable and socially responsible manner. It aims to minimize the negative environmental, social, and economic impacts associated with the procurement process and promote sustainable practices throughout the supply chain.

Implementing a sustainable procurement and purchasing policy brings several benefits including reduced environmental impact, enhanced reputation, cost savings through efficiency improvements, and increased social responsibility. The element of the policy are used as guidelines that the university follows when making decisions with a focus on environmental, social and governance (ESG) factors and ensure consistency with sustainability goals.

Below is the set of key elements included in the policy:

1. **Environmental Considerations:** prioritization of environmentally friendly products and services that have a reduced carbon footprint, conserve resources, promote energy efficiency, and minimize waste generation. This includes the use of renewable materials, promote recycling and waste reduction, and specify environmentally preferable conditions and standards.
2. **Social and Labor Standards:** The policy require suppliers to comply with social and labor standards, including fair wages, safe working conditions, and respect for human rights. Such a policy promotes the use of suppliers who have fair trade or responsible sourcing certifications and encourage diversity and inclusion
3. **Ethical Sourcing:** The policy addresses issues such as conflict minerals, child labor, and corruption. It requires suppliers to provide evidences of responsible sourcing practices and ensure that they do not engage in unethical or illegal activities.
4. **Screening and Exclusions:** The policy includes criteria for screening and excluding certain investments based on negative ESG factors. For example, it may exclude investments in companies involved in fossil fuel extraction or those with poor labor practices. This approach aims to align investments with ethical and sustainable principles
5. **Supplier Evaluation and Selection:** The policy outlines criteria for evaluating and selecting suppliers based on their sustainability performance. It considers factors such as environmental management systems, social responsibility practices, and adherence