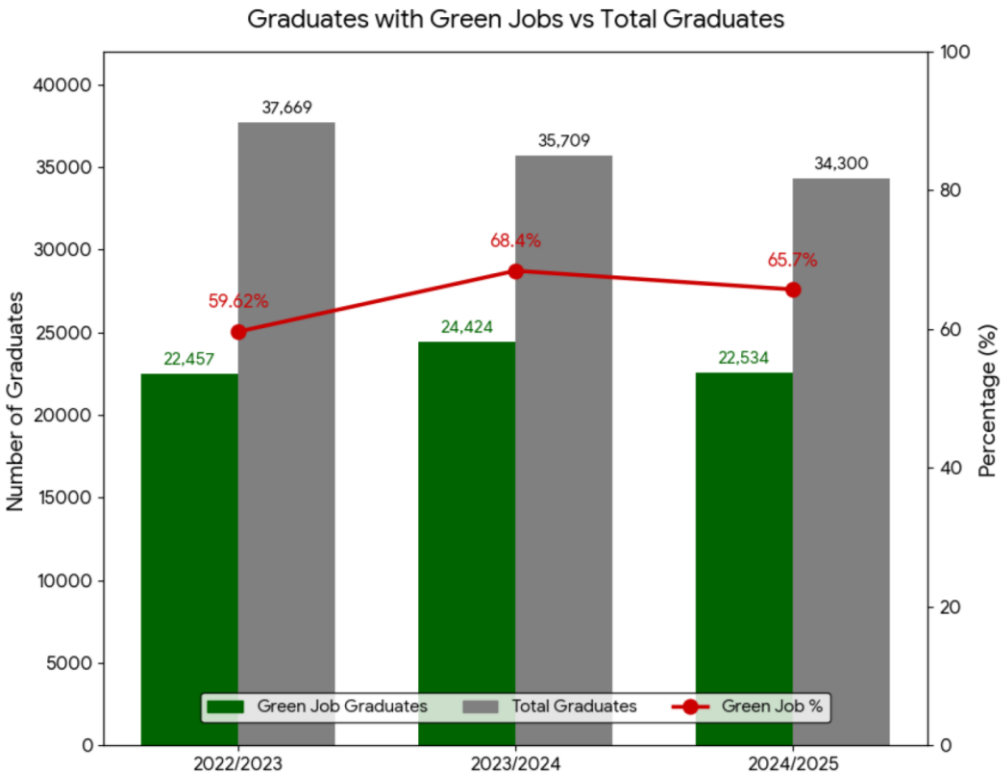
7.4.3 Direct services to local industry aimed at improving energy efficiency and clean energy

Alexandria University supports local industry by providing energy-efficiency assessments, specialized workshops, and applied research on renewable energy solutions. Through its research centers, technology incubators, and renewable-energy laboratories, the university offers technical guidance, training, and innovative clean-energy models that help businesses reduce energy waste and adopt sustainable technologies. These outreach services strengthen industry–university collaboration and promote the transition to a more efficient, low-carbon industrial sector in Alexandria and beyond.

- Alexandria University has established an integrated governance and sustainability framework that embeds sustainable development into institutional leadership, operations, education, research, and community engagement. Sustainability initiatives are supervised centrally through the Vice President for Community Service and Environmental Development and implemented across faculties through Vice Deans and faculty sustainability committees.

- Alexandria University has dedicated 137 staff members to sustainability governance, including university leadership, sustainability office members, vice deans, and faculty sustainability committees. Their activities include sustainability reporting, policy development, workshops, research collaboration, stakeholder engagement, and living-lab projects focused on energy, water, waste, and circular economy themes.

- Alexandria University continues to prepare graduates for careers that contribute to sustainable development and the green economy. As shown in the figure, the number of graduates employed in green jobs remained consistently high over the three academic years. In 2022/2023, 22,457 out of 37,669 graduates secured green jobs, representing 59.62% of total graduates. This proportion increased significantly to 65.7% in 2023/2024, with 22,534 graduates entering green employment out of 34,300 total graduates, and was maintained at 65.7% in 2024/2025. The sustained increase in the percentage of graduates employed in green sectors reflects the University's commitment to integrating sustainability into education, equipping students with the knowledge and skills required for emerging green careers, and supporting the transition to a sustainable and low-carbon economy.



- Alexandria University actively promotes sustainability-driven entrepreneurship through a dynamic innovation ecosystem that supported 46 sustainability-related startups during the reporting period. The University provides comprehensive incubation, mentoring, training, and commercialization support through initiatives such as the Artificial Intelligence Minds Incubator (AIM) and the Alexandria University Technology Incubator for Smart Systems (AUTISS), which foster innovative solutions in artificial intelligence, smart infrastructure, healthcare, agriculture, energy, and digital technologies. Student-led startups, including Samdha Company, develop environmentally friendly products by converting organic and agricultural waste into natural fertilizers and biodegradable materials, thereby reducing waste, supporting sustainable agriculture, and conserving water. In addition, entrepreneurship competitions such as the Startup Olympics and international programs, including the Bio-iChallenge and Hult Prize, encourage students and researchers to transform innovative ideas into market-ready businesses with significant environmental and social impact.



Alexandria University Technology Incubator for Smart Systems (AUTISS) Incubator (Faculty of Engineering, Alexandria University)



Agro-Food Industries Alliance Products



New partners

Agro-Food Industries Alliance Project

Startup name: "National Committee Sustainable Development"

Startup area in UI Greenmetric questionnaire (SI, EC, WS, WR, TR, ED)

Description: Proposed Mission: Striving to maximize the utilization of the outputs of education and scientific research with the sustainable development goals "Egypt Vision 2030", linking them with the United Nations goals for sustainable development together with developing a framework for the educational system governance aiming at achieving the well-being of society. It includes green, sustainable development and innovative incubators.



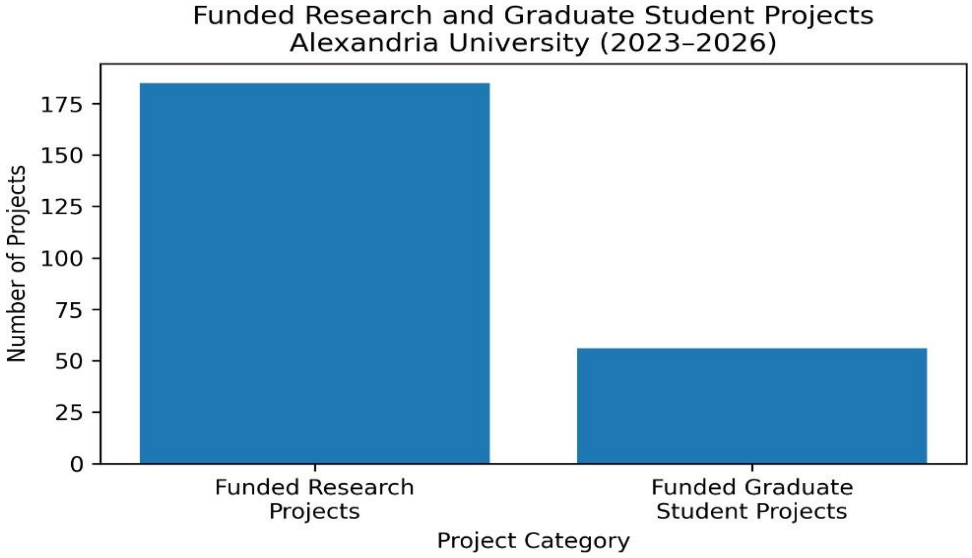
Samdha Company, founded by Musaad Darwish, a student in the Department of Civil and Environmental Engineering at the Faculty of Engineering



Samdha Company: The plants in the 2 photos on the left are planted in presence of natural organic fertilizers

- Alexandria University maintains a robust collection of twenty-six sustainable programs and projects focused on renewable energy, energy efficiency, climate change mitigation, and resource management. These endeavors unite education, research, infrastructure, and community engagement via renewable systems, solar energy, wind power, green technologies, biofuel studies, and global academic networks. The University runs energy centers within the Faculty of Agriculture, Faculty of Science, and Faculty of Engineering, where solar photovoltaic installations, wind power systems, and building technologies support operations and applied research. Furthermore, Alexandria University provides postgraduate education concerning climate change, sustainable fisheries, natural resources, and the blue economy through international partnerships. Campus projects, featuring the Green Cycle initiative, greywater treatment, efficient buildings, solar power

stations, and plastic laboratories, highlight the institution's dedication to reducing carbon emissions, optimizing resource efficiency, and training students to tackle global environmental challenges.

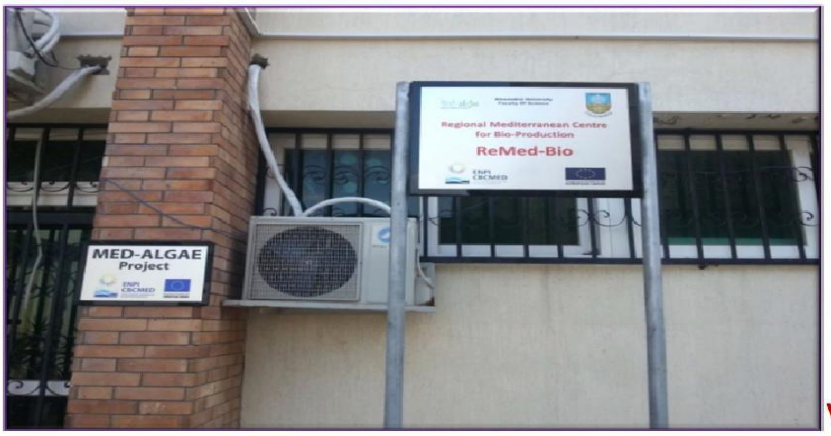


The number of funded research projects and funded graduate student projects at Alexandria University (2023-2026) 185:56



Natural Resources Sustainability for Land Development (Erasmus+ Project, European Union) in collaboration of Alexandria University (Egypt) with Aachen University (Germany)

Med-algae
Production of Biodiesel from Algae



Visitors, Stakeholders & Media
29 March 2014

Project funded by the EUROPEAN UNION

ENPI CBCMED

Production of Bio-Diesel from Algae in Selected Mediterranean Countries: Med-Algae Project, Faculty of Science, Alexandria University, Egypt. Fuded by CBCMED-ENPI (CROSS BORDER COOPERATION IN THE MEDITERRANEAN-European Neighborhood and Partnership Instrument)





Smart Environmental Management of Climate Change in collaboration with Catania University, Italy. (AdapTm-Erasmus project) – Faculty of Science, Alexandria University, Egypt.

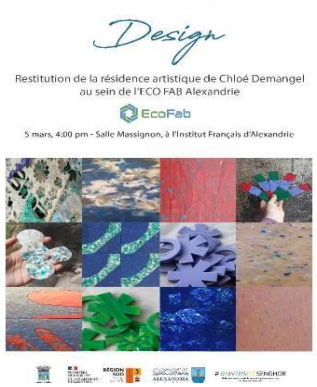


Sustainable Management of Fisheries and Aquaculture Science, in collaboration with University of Aveiro, Portugal (Erasmus+ Project, European Union) - Faculty of Science, Alexandria University, Egypt.



Alexandria University Center for Maritime Archaeology & Underwater Cultural Heritage was established as a European Union project under the EU-Tempus III Program

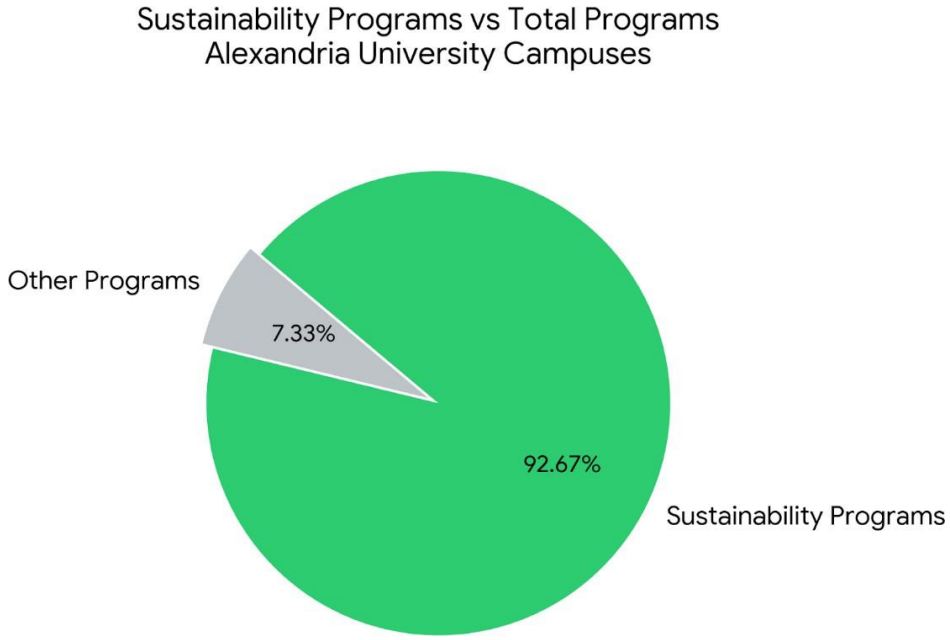


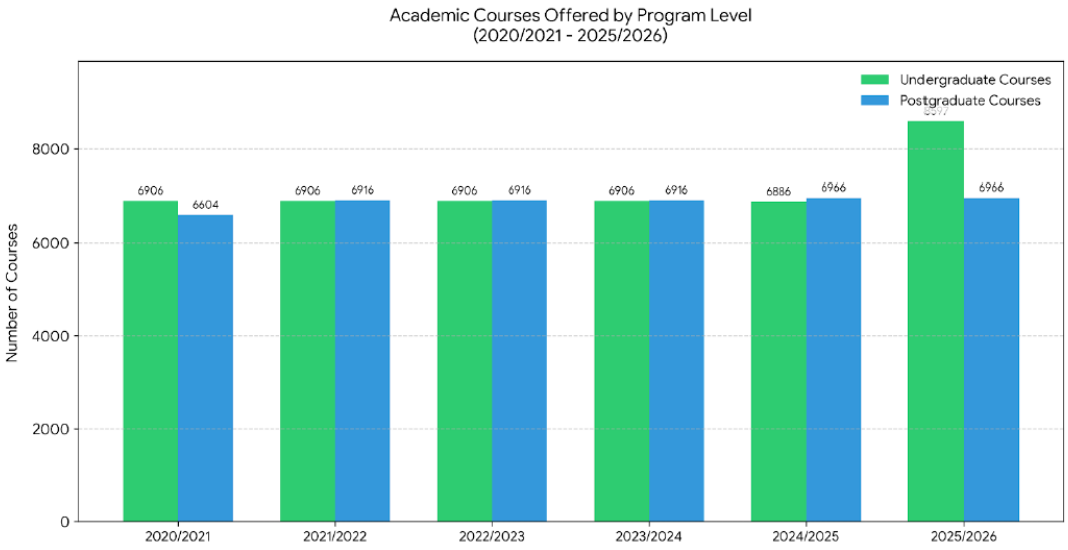


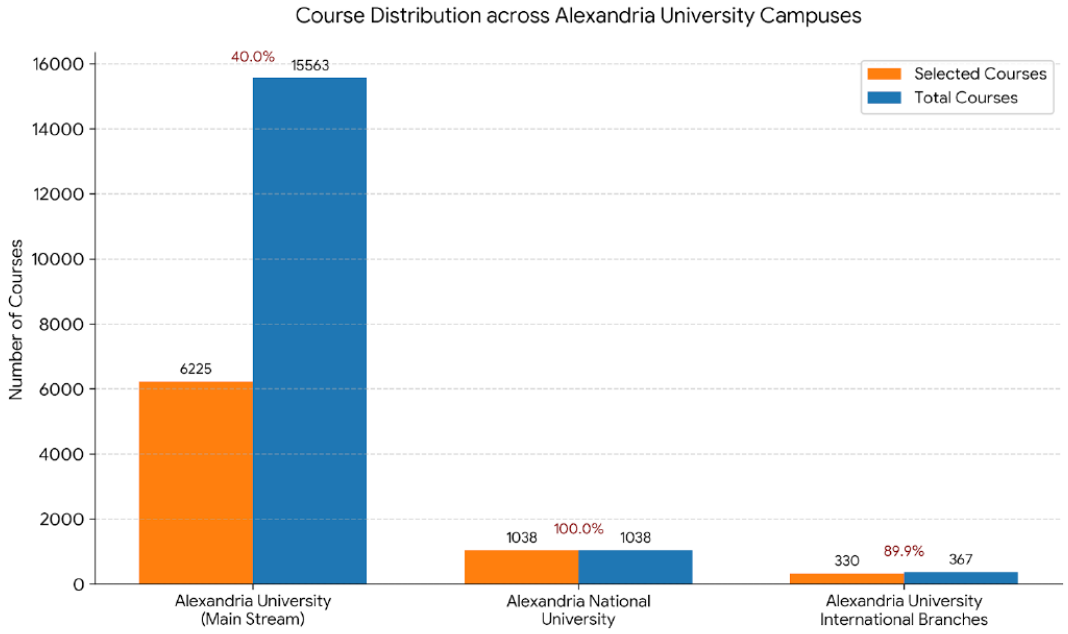


The Eco Fab is a fab lab dedicated to plastic recycling in Alexandria, Egypt and part of PECA project (Circular economy hub in alexandria).

- The University secures diverse funding sources, including national agencies like the Science, Technology and Innovation Funding Authority and the Academy of Scientific Research and Technology, alongside international organizations such as the European Union, Erasmus+, and global research partners. Alexandria University also supports researchers via publication agreements, open-access publishing opportunities, and thirty-nine scientific journals published in Arabic and English, several of which provide free publication options for University researchers.




Academic Courses Offered by Program Level
(2020/2021 - 2025/2026)
Undergraduate Courses
Postgraduate Courses
Number of Courses
0
2000
4000
6000
8000
6906
6604
6906
6916
6906
6916
6906
6916
6886
6966
6966
2020/2021
2021/2022
2022/2023
2023/2024
2024/2025
2025/2026


Course Distribution across Alexandria University Campuses
Selected Courses
Total Courses
Number of Courses
0
2000
4000
6000
8000
10000
12000
14000
16000
40.0%
15563
6225
1038
100.0%
1038
330
89.9%
367
Alexandria University
(Main Stream)
Alexandria National
University
Alexandria University
International Branches



Five Cooperation Protocols Signed Between Alexandria University and French Universities





A seminar organized on November 2025 by the Faculty of Engineering in cooperation with Russian delegation from Rosatom, titled “The Role of Engineering in the Peaceful Use of Nuclear Energy.” Held as part of the 2025 Science and Innovation Celebration, the seminar addressed the role of artificial intelligence engineering in advancing the nuclear industry, the integrative relationship between different engineering disciplines and the nuclear sector, and presented insights into the future of nuclear energy worldwide, with a focus on the promising career paths available in this field.





Alexandria University, received on November 2025 a delegation from the Russian company

Rosatom, headed by Ms. Elena Alexandrova, an official from the events sector at Atom Energy of the Future. The visit aimed to explore avenues for strengthening scientific and research cooperation between Alexandria University, the Russian company, and academic institutions in Russia.





The closing ceremony of the "Flow and Foresight" workshop (April 2025), organized by the Faculty of Engineering at Alexandria University in collaboration with the University of Toulon and the Barcelona Advanced Computing Centre. The workshop that was part of the Pharos project, funded by the government of the Southern France region, aimed to discuss climate change and hydrodynamic processes to enhance resilience to marine and submersion hazards. The two-day event was held at the Faculty of Engineering, the Bibliotheca Alexandrina, and the French Cultural Institute. highlighted the importance of the timing of the workshop in light of accelerating climate change and increasing carbon emissions, and Alexandria's exposure to the repercussions of these changes and their impact on infrastructure. She noted the Alexandria Governorate's adoption of several initiatives in the fields of smart green projects, clean energy, sustainable transportation, and waste recycling.





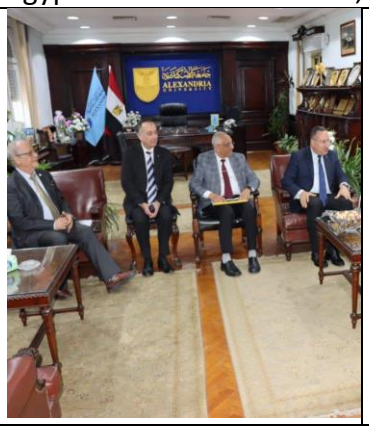
Introductory Meeting on Requirements of Second Call for Research Projects of European Regional Cooperation Program Interreg NEXT MED (January 2025). The requirements for obtaining funding for applicable research projects aimed at enabling Mediterranean countries to achieve more sustainable, intelligent, competitive, cooperative, and comprehensive development with lower carbon emissions and pollution rates, by supporting youth environmental projects and green transformation projects in the sectors of education, health, waste management, confronting climate change, entrepreneurship, applied research, rationalization of energy consumption, water scarcity research, and governance, and focusing

on areas of policy development, awareness-raising, training, modern technology, and innovation.





Under the Strategic Partnership between the Arab Republic of Egypt and the European Union Ministry of Planning, Economic Development and International Cooperation Witnesses the Launch of the "EU 4 Water Preneurs" Training Camp for Entrepreneurs in the Water Sector (May 2025). The initiative aims to stimulate the young energies of Egyptian innovators, researchers, and students, and encourage them to develop scientific and realistic solutions applicable on the ground to address the increasing and interconnected challenges facing Egypt in the fields of water, energy, and food.





President of Alexandria University, received Ambassador Olivia Todrian, Ambassador of Romania in Cairo, to discuss means of cooperation in academic and research fields of common interest (January 2025) and to develop cooperation with Romanian academic institutions in scientific and research fields of common interest through the exchange of expertise, ideas and scientific research, especially in the fields of nanotechnology, water technology and energy.




In February 2025, Alexandria University Council approved the cooperation agreement to establish an academic program for partnership in nuclear law between Alexandria University (Faculty of Engineering) and the International Atomic Energy Agency in Vienna, Austria.




In May 2025, Alexandria University's Graduate Studies and Research Council Discusses Opening Applications for Projects Funded by Science, Technology, and Innovation Funding Authority (STDF). These projects are funded by EGP 3 million per project in the fields of water, food and agriculture, health, information and communications technology, advanced industries, renewable energy, and artificial intelligence. The program also includes the Egyptian-Chinese Joint Research Laboratories Establishment Program (First Call), with funding of up to EGP 20 million from the Egyptian side and 3 million yuan from the Chinese side for projects including waste management and recycling, green energy, low-carbon technology, smart agriculture, artificial intelligence, and advanced robotics. The deadline for applications for these projects is June 23, 2025.



In November 2025, minister of Higher Education and Scientific Research, announced that Alexandria University won second place in the "Best Eco-Friendly University" competition among public universities established more than fifty years ago. It is worth noting that the competition was based on precise evaluation criteria, including the efficiency of green infrastructure, energy management, resource consumption rationalization, waste management, in addition to student initiatives that contribute to raising the level of environmental awareness within the university community.





A workshop organized by Alexandria University in cooperation with the Academy of Scientific Research and Technology and the Horizon Egypt Program on "European Union Funding and Support for Scientific Research and Innovation." The workshop aimed to introduce European Union-funded projects and how researchers at Alexandria University can benefit from them, as well as how to apply for these projects, in addition to introducing grants provided by the European Union. Alexandria University has a role in the "European Horizons" program as a partner country in this agreement, which was initialed in April 2025. He emphasized that this program is an exceptional opportunity for researchers at Egyptian universities and research centers to obtain funding for their innovative research ideas. He also discussed the Prima initiative, which provides the necessary funding for competitive projects in the fields of water, food, agriculture, and energy, with joint funding from European Union countries and countries of the Southern Mediterranean.



1- 2nd International Conference on the Role of Organic, Medicinal, and Pharmaceutical Chemistry.

In collaboration with ACS Egypt, our chapter actively supported the organization and smooth running of this international summit (July 14–15, 2025), serving 230 total attendees. Our members managed the event flow, gatekeeping, information desk, and poster hall coordination. The experience allowed members to experience professional conference management while networking directly with international speakers from Georgia State University.



Student organizations such as student chapters, engineering groups, and pharmaceutical associations played a leading role in delivering these initiatives. Their activities promoted green chemistry, circular economy principles, climate action, sustainable materials, water innovation, biodiversity conservation, scientific communication, entrepreneurship, and environmental education through hands-on workshops, public awareness campaigns, interactive exhibitions, field training, and international collaborations across campus facilities and academic faculties.



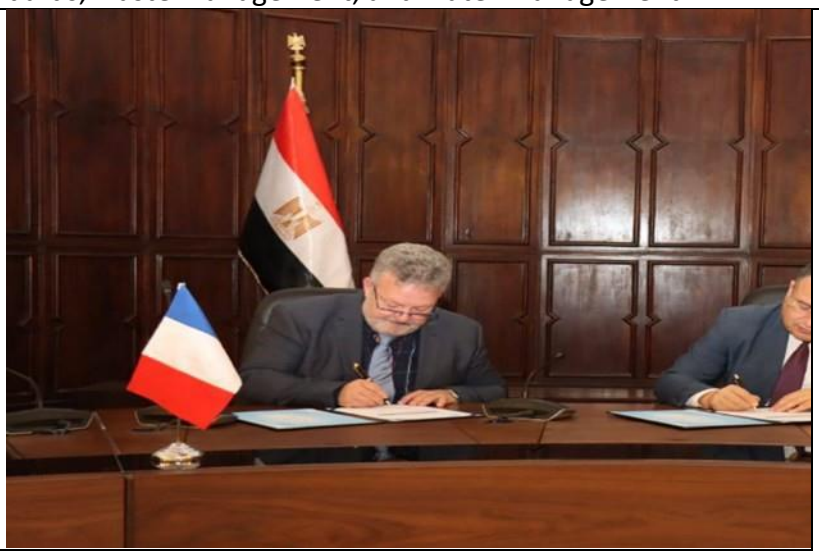
Centre of Excellence for Water at Alexandria University Organizes Workshop (August 2024) on Relationship between Water, Energy and Food in Cooperation with the Arab Water Council. The workshop aimed to deepen the comprehensive understanding of the interrelationship

between these three resources (water, energy and food), highlight the challenges they face, and propose sustainable solutions, and the latest developments in this field, exchanging creative ideas, and enhancing cooperation between industry and academic institutions.



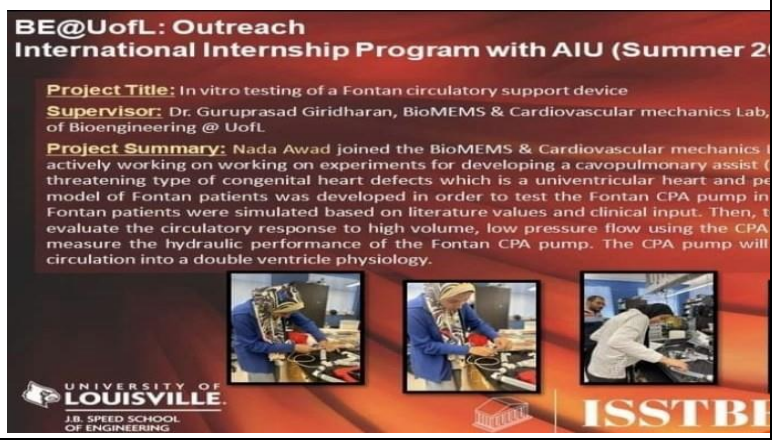


Alexandria University Receives Supreme Council of Universities Delegation for Best Environment-Friendly University Competition August 2024. Explaining the role of the university in serving and developing the community, and the vision of Alexandria University towards raising the awareness of its students to care about environmental issues, contributing to building a better and more sustainable future for the younger generations, and reaching a green university by adhering to a number of standards, the most important of which are education and scientific research, university infrastructure, energy and climate change standards, waste management, and water management.





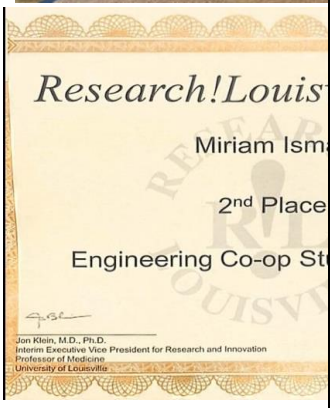
AU and Université du Littoral Côte d'Opale (ULCO) – Dual Degree Cooperation Programs











Alexandria University's Faculty of Engineering Students win First Places in Annual Summer Training Competition at University of Louisville, USA. The summer training program comes within the framework of the distinguished partnership between Alexandria University and the University of Louisville, USA, over the past years, which includes the partnership in summer training in research laboratories at the University of Louisville, and the partnership in the 2+2 bachelor's programs to grant double degrees in computer science and engineering, and biomedical engineering majors. This year was the graduation of the first group that joined the University of Louisville through this partnership in the field of biomedical engineering, numbering
five students.



Inauguration of First International Conference on Advances in Science for Sustainable Development (ICASSD 2024) May 18, 2024, the conference aims to harness science and technology to confront the challenges facing our world today. successive scientific developments have begun to play a pivotal role in finding solutions to pressing issues such as climate change, artificial intelligence, and environmental degradation.



Centre of Excellence for Water at Alexandria University Organizes Workshop on Relationship between Water, Energy and Food in Cooperation with the Arab Water Council in 15 august 2024. The workshop aimed to deepen the comprehensive understanding of the interrelationship between these three resources (water, energy and food), highlight the challenges they face, and propose sustainable solutions, and the latest developments in this field, exchanging creative ideas, and enhancing cooperation between industry and academic institutions.



The Faculty of Pharmacy won third place in the Alexandria Governorate for the 2024 National Initiative for Green Smart Projects with its 'Green Cycle' project, competing in the non-profit community initiatives category. This marks the project's second consecutive year of recognition, having previously secured first place last year.



The Center of Excellence for Water at Alexandria University is pleased to announce the opening of applications for the fourth workshop entitled (The Relationship between Water - Energy - Food), which will be held at the American University in Cairo during the period from August 3-26, 2024.

Applications are open until May 14, 2024.



Alexandria University President Receives Australian Ambassador to Cairo and his accompanying delegation, to discuss enhancing the frameworks of joint cooperation between Alexandria University and Australian universities and academic institutions in linking scientific research to industry, especially in the fields of water, energy, and agriculture, through the activities and programs provided by the Water Excellence Centre at the university.

- An academic team (Ph.D.) from the Faculty of Science at Alexandria University teaches a course titled 'Man and Environment' (University Elective Course – 2 Credits). The course addresses environmental problems, types of natural resources, pollution, environmental footprint, carbon footprint, waste management, recycling, climate change and global warming, biodiversity, and the Sustainable Development Goals (SDGs). It is offered to students from various faculties at Alexandria University, such as:
  1) Faculty of Science
  2) Faculty of Tourism
  3) Faculty of Agriculture
  4) Faculty of Sport Education
  5) Faculty of Business
  6) Faculty of Computers and Data Science
  7) Faculty of Dentistry
  8) Faculty of Economics and Political Science
  9) Faculty of Arts
  10) Faculty of Nursing

Also, this course is offered in some programs at Alexandria National University, including:

A. Computer and Data Sciences (CDS) Programs

B. Oral and Dental Surgery Program
C. Software and Multimedia Production Program (SIM)

The Renewable Energy Center at Faculty of Agriculture Alexandria University.

- The center along with partner from Greece, Germany, Spain Morocco and Tunisia awarded a Six Framework project (FP6 project) from the European commission to developed Hybrid renewable energy system to supply service for Mediterranean partner countries.
- The center representing AU and Las Palm University in Spain awarded a project from the Spanish cooperation Spanish Agency for International Co-Operation (AECE), in the area of water desalination by Renewable Energy.
- Recently with cooperation with the Faculty of Engineering, the center awarded an STDF project. The project title is "Development of hybrid renewable energy - RO desalination system and minigrids for remote and desert areas in Egypt(HAREDES)".

The Center Goals are to:

- Remove the knowledge barriers against the installation of RE systems in Egypt.
- Enhance the utilization of renewable energy.
- Develop educational and e-learning program about renewable energy.
- Educate students, graduates, public and key stakeholders in Egypt and the Arab world on the various sources ofrenewable energy and its successful applications.
- Build the infrastructure necessary to develop, install and maintain renewable energy applications.
- Present a show case or a model for the successful utilization of renewable energy in Egypt.
- Continue excellence in all of our educational programs.

S**olar 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 collaborationswith 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.