7.4.5 University provide assistance for start-ups that foster and support a low-carbon economy/technology

Alexandria University Technology Incubator for Smart Systems (AUTISS) nurtures innovation and entrepreneurship, linking university research with Egypt's Vision 2030 and the UN SDGs. It supports startups in smart systems, energy, agriculture, health, and education, providing technical, business, and commercialization guidance. The Energy Conservation Advisory Group assesses energy use and efficiency, while the Air Pollution Advisory Group monitors emissions and advises industries to improve air quality. Together, they advance sustainable technologies and environmental stewardship in Alexandria and beyond.

- Alexandria University is advancing a dual-track sustainability initiative comprising a rooftop photovoltaic installation and a Fab Lab for circular economy innovation. The solar component, targeting approximately 200 m² of suitable roof space (net usable area: 196 m² after accounting for 3% service access), will deploy a 1.5-ton system generating an estimated 37,700 kWh annually under Alexandria's mean global horizontal irradiance of 5.2 kWh/m²/day, factoring in 20% panel efficiency and a 0.75 performance ratio to account for system losses.

Solar photovoltaic

- **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 addedservices 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 amongstudents 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 enactwealth 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 necessarysupport.
- 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

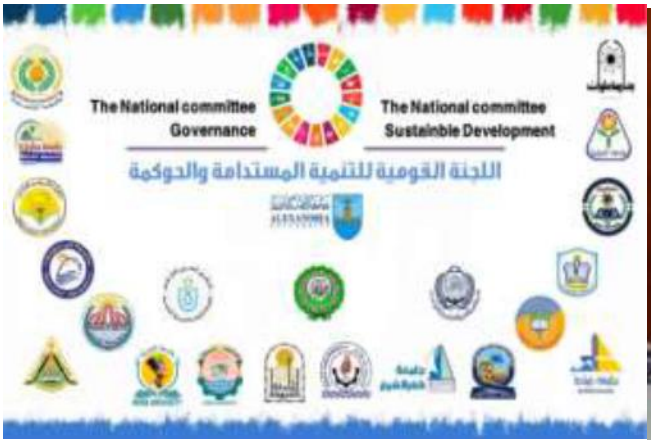
Alexandria University Technology Incubator for Smart Systems (AUTISS) Incubator (Faculty of Engineering, Alexandria University)

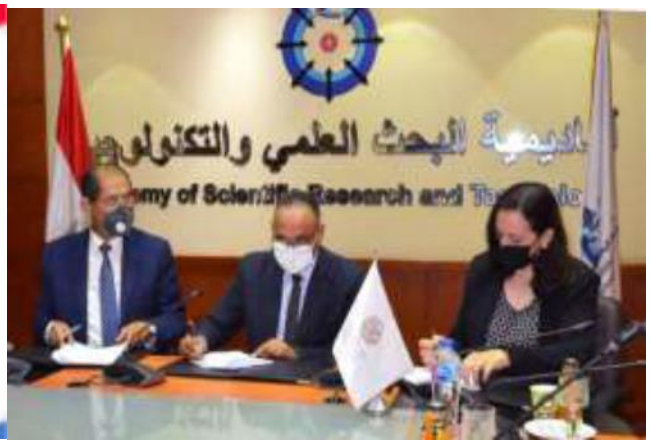
- **National Committee Sustainable Development**

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.





- **Energy Conservation Advisory Group:**

This group is concerned with reviewing energy in all its forms at all levels, such as measuring and analyzing exhaust gases in furnaces and boilers with the aim of improving combustion efficiency and reducing emissions, measuring and analyzing boiler water, in addition to tests of thermal insulation efficiency, lighting efficiency, electrical energy analysis, and compatibility with electrical loads. It also determines the power factor to increase efficiency. Rationalizing the energy used, reviewing energy use, radiation measurements and safety tests for radioactive sources. The group has a mobile laboratory that can visit sites and make environmental measurements related to energy as well as emissions and study energy consumption and the extent of thermal insulation in industrial sites.

- **Air Pollution Advisory Group:**

The group is interested in monitoring organic and inorganic gaseous emissions to determine air quality in residential and traffic-intensive industrial areas. It manages the national network of air pollutant monitoring stations in Alexandria and the Delta. It also provides consulting services to factories and agencies to determine air quality inside and outside the work environment and also control air pollutants.