

Project Summary

Project title “**A Guide Study for Integrated Sustainable Solutions for Energy and Water Management in Future Educational Buildings in Egypt**”

Project No. **46872**



The project led by the **Renewable Energy Research Group** at the **British University in Egypt (BUE)** in collaboration with **Shoubra University**, was **funded by the Science, Technology, and Innovation Funding Authority (STDF)**.

Objectives:

The project aimed to integrate the Sustainable Development Goals (SDGs) into higher education through practical applications in energy and water management, focusing on three key pillars—laws, people, and technology. It sought to develop a replicable framework for sustainable building practices by enhancing policy alignment, community awareness, and technological implementation.



The
BRITISH UNIVERSITY
IN EGYPT

Results:

The project successfully designed and validated a **comprehensive energy audit system** and **indoor air quality assessment methodology** using standardized quantitative tools. **Two renewable energy prototypes (solar and wind)** and a **clean water supply model** were developed and tested in case studies at BUE Engineering Building. The outcomes demonstrated measurable reductions in energy consumption and improved air quality indicators, offering a scalable model for sustainable retrofitting in Egyptian educational buildings. The project provides a practical roadmap linking academic research with national sustainability strategies.