



UNITED
INTERNATIONAL
UNIVERSITY

Sustainability Report 2023





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SDG 7

Affordable and Clean Energy

UIU is fully aware and convinced that energy is central to sustainable development, which is the major challenge of the moment.

Our university follows the directives from the “Energy Efficiency and Conservation Master Plan” of the government. In order to reduce energy consumption for air cooling.

Our university building is designed keeping a large percentage of areas open to allow enough natural light and natural air flow to keep the campus naturally bright and cool.

We ensure reduction of energy consumption through replacing the less efficient appliances by more efficient ones, e.g., replacing the non-LED lights or computer monitors by LED based appliances. Second is by conservation of energy by reducing pilferage.

Most of our energy consumption (~75%) comes from air conditioners and attendants are assigned to make sure that the air conditioners are switched off when the rooms are not in use. We are already using automated switching off mechanisms using IoT in some places.

Our university is one of the leading institutions involved in the research and promotion of renewable energy in the country.

Our Centre for Energy Research (CER) offers courses on renewable energy technologies and provides consultancy services to the public and private sector.

We are also involved in energy auditing of interested industrial or commercial installations and in design and implementation of large scale rooftop solar etc.

We have designed more than 70% of the solar mini grid facilities established in Bangladesh. We have already implemented the 128KW solar panel in the University rooftop to generate electricity for us.



United International University (UIU) is committed to sustainable energy practices and aligns its policies with the Energy Efficiency and Conservation Master Plan of Bangladesh's Power Division. Key initiatives include:

Energy Efficiency Measures

Adoption of energy-efficient appliances such as **LED lights and monitors**.

Conservation efforts through **reducing energy pilferage, assigning attendants, and implementing IoT-based automated switching systems**.

Plans to introduce smart systems and sub metering for detailed energy consumption analysis.

Renewable Energy Adoption

A 128KW rooftop solar PV system is operational, with plans for further expansion to cover all campus buildings.

Focus on reducing reliance on carbon-intensive energy sources like coal and oil.

Research and Education in Renewable Energy

The Center for Energy Research (CER) offers courses on renewable energy technologies and consulting services to public and private sectors.

Involvement in designing and implementing more than 50% of Bangladesh's solar mini-grids.

Policy and Advisory Contributions

Faculty members collaborate with government bodies to shape renewable energy policies, including net metering, smart grids, and clean cooking technologies.

Advisory services are provided to renewable energy-based startups and low-carbon initiatives.

Commitment to Divestment and Industry Support

UIU actively supports divestment from fossil fuels while fostering education, research, and consultancy in renewable energy and low-carbon solutions.



These initiatives highlight UIU's leadership in promoting sustainable energy practices and supporting the transition to a low-carbon future.



Energy and the Community

The Centre for Energy Research (CER) at United International University (UIU), under the Department of Electrical and Electronic Engineering (EEE), is at the forefront of innovation in renewable energy and sustainability.

Research and Innovation

Focus areas include renewable energy, green technologies, and environmental sustainability.

Developed a **World Bank-funded Renewable Energy Research Laboratory** for advanced research.

Key projects include designing **low-cost, high-efficiency circuits for solar and electrical appliances, micro controller-based solar charge controllers with maximum power point tracking, smart AMI meters for distribution systems, and smart solar irrigation systems.**

Conducted technical audits of Solar Home Systems (SHSs) installed across Bangladesh under IDCOL programs in 2008 and 2011.

International Conferences

Hosts the biennial **International Conference on the Developments in Renewable Energy Technology (ICDRET)**, with six successful events held between 2009 and 2021.

The conferences attract national and international participants and have been co-organized and supported by institutions such as:

GIZ, DAAD, IFC, IDCOL

University of California, Berkeley (USA), Technical University of Berlin (Germany), TERI (India), Virginia Tech (USA), University of Oldenburg (Germany), and Kathmandu University (Nepal).

IEEE-PES served as a technical co-sponsor.

Smart Power System Lab

Established in 2021 with support from the **Bangladesh Energy and Power Research Council**, Ministry of Power, Energy, and Mineral Resources.

Research and Innovation

CER has successfully completed over **200 research, study, and commercial projects** to date, contributing to advancements in renewable energy and sustainable practices.





Accolades

The Director of the Centre for Energy Research (CER) at United International University (UIU) has received multiple prestigious awards for groundbreaking contributions to renewable energy and sustainability

United Nations Momentum for Change Award (2016)

Recognized at the **UNFCCC Climate Change Conference (COP 22)** in Marrakesh, Morocco, for developing the "**Smart Solar Village**" project, enabling energy trading among households with or without Solar Home Systems (SHS).

The Smarter Europe Award (2022)

Received in Munich, Germany, as the **Team Leader and Principal Investigator** of an award-winning project in the category of **Outstanding Solar Projects**.

World Society of Sustainable Energy Technologies Innovation Award (2022)

Honored in Istanbul, Turkey, as the **Team Leader and Principal Investigator** of the award-winning project in the category of **Renewable Energy Systems**.

Asia Pacific ICT Alliance (APICTA) Award (2021)

Recognized as the **Team Leader and Principal Investigator** of a finalist project in Kalalau, Malaysia.



These accolades highlight UIU's global impact and leadership in advancing innovative renewable energy solutions and sustainable development.



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SUSTAINABLE DEVELOPMENT GOAL 7

Ensure access to affordable, reliable, sustainable and
modern energy for all



[Sustainability at UIU](#)