

Science Lecture on “Innovation in Renewable Energy”



Location	DAAD Regional Office Cairo
Date	21st November 2024
Guests	Scientists of the disciplines of Sustainability, Energy, Engineering, Climate Change and Environment. Policy makers and public administration personnel. Young scientists with interest in the field; DAAD alumni
Duration	2,5 h
Moderation and Contact Person	Ms. Miram Mahmoud (m.mahmoud@daadcairo.org)
Organiser	DAAD Regional Office Cairo German Academic Exchange Service 11 El Saleh Ayoub St. Zamalek, Cairo, Egypt URL: https://www.daad.eg

Concept Note

There are a lot of innovations that are shaping the renewable energy sector. New energy technologies are becoming increasingly popular, creating better awareness around shifting to cleaner solutions, like green energy technologies. Many industries are implementing changes and focusing on creating more sustainable solutions, from renewable energy sources, like solar and wind power to energy storage, electric vehicles, innovative heat pumps, hydrogen technologies, smart electricity grids and more alternatives for coal, oil and gas.

With the growth of artificial intelligence (AI), additive manufacturing, automation and other technologies, the transition towards a cleaner future can be easier. Many of the new energy advances help control and monitor infrastructures and improve the environment by replacing old equipment with newer solutions based on sustainable energy engineering. Thermal imagers, for example, indicate damages to solar installations caused by overheating and pressure transmitters can be used in hydrogen applications to examine the expansion force of a liquid or gaseous sample.

With technological advances, more things can be monitored and measured, creating the opportunity for the whole world to build a more sustainable environment.

Agenda

Opening

Greeting Words

Director, DAAD Regional Office Cairo

6:00pm – 6:15pm

Ms. Lorena Mohr

Head of the Science and Protocol, German Embassy in Cairo

Keynotes

Keynote I

6:15pm – 7:00pm

Prof. Dr Manfred Fishedick

President and Scientific Managing Director of Wuppertal
Institute for Climate and Environment

*“How to achieve greenhouse gas neutrality in Germany – role of
renewable energies and hydrogen”*

7:00pm – 7:15pm

Q&A Session

7:15pm – 7:30pm

Break

Keynote II

7:30pm – 8:15pm

Dr. Amr Sobhy

Climate Change Advisor at GIZ (Deutsche Gesellschaft für Inter-
nationale Zusammenarbeit (GIZ) GmbH, German Society for In-
ternational Cooperation)

“125MW PV, 1000MW Effort: Egypt Industry PV NAMA”

8:15pm – 8:30pm

Q&A Session

Closing Remarks and Wrap-Up

DAAD Regional Office Cairo

8:30pm

Dinner and Networking

Speaker Profile

Prof. Dr Manfred Fishedick

Area of Expertise: Energy system analysis – sustainability and transformation research



Prof. Dr. Fishedick is president and scientific managing director of the Wuppertal Institute and professor at the Faculty of Economics - Schumpeter School of Business and Economics at the university of Wuppertal. He studied chemical engineering with the main focus on energy and environmental technologies at the University of Dortmund. He earned his doctorate in the field of energy technology at the University of Stuttgart analyzing the integration effects of renewable energies into the existing power plant system.

Manfred Fishedick has more than 30 years of experience in energy system analysis. He advises international institutions, the European Union, the German Federal Government and the Federal State of North Rhine-Westphalia as well as companies from a variety of industries. He is author of numerous books and articles, member of several scientific advisory boards, among others coordinating lead author of the fifth and sixth Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC).

Jointly with the Wuppertal Institute, Manfred Fishedick pursues a transformative scientific approach.

Brief about the Presentation:

The presentation outlines the main challenges for the transformation of the energy system in Germany. Following the climate protection law, which was implemented in 2019, the country aims for greenhouse gas neutral by 2045 latest. In the presentation various transformation pathways are shown and discussed which technologies are needed to achieve the climate protection goals, which (new) infrastructures are needed as solid ground for the transformation and how the different strategy elements could be combined properly. A specific focus will be on the role of renewable energies and hydrogen to fulfill the outlined goals. The presentation will end with reflecting on the various technological, economic, cultural, institutional, political and social challenges that have to be overcome, but also highlights the manifold chances associated with the transformation. Lastly, the need for more international cooperation will be stressed.

Dr Amr Sobhy

Area of Expertise: GHG accounting; GHG emission reduction/mitigation; climate MRV & transparency; climate finance



Dr. Amr Sobhy completed his engineering bachelors, masters, and PhD at McGill University (Canada) and his post-doctoral fellowship at Ecole Polytechnique de Montreal. He is an environmental practitioner with 15+ years' experience in the RE/EE, infrastructure, water, and waste sectors. He has supported the Egyptian negotiations team at the UNFCCC Conference of Parties (CoP) and is a member of the UNFCCC Roster of Experts. He is co-coordinator of the GIZ Egypt Climate Group and the environment committee at the National Council for Women. He advises and trains governmental, academic, civil society, and private entities on environmental and climate policy, capacity development, and implementation. He is currently leading the engagement with an international climate fund (NAMA Facility) as well as banking, industrial, and governmental institutions to establish a EUR75M solar energy finance and technical assistance program for Egyptian industrial SMEs.

Brief about the Presentation:

Overview of the solar energy finance and technical assistance program for Egyptian industrial SMEs being developed by the Ministry of Electricity and Renewable Energy- with support from GIZ/JCEE- and the associated international climate finance proposal to be submitted to the NAMA Facility