

Deutscher Akademischer Austauschdienst German Academic Exchange Service

# **Water Sustainability**

Bridging Science, Action and Design for a Clean Nile

9th May 2024

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Programm
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# Thursday, 9th May 2024

5.30–6.00 p.m. [Entrance & Garden]	Registration
6.00–6.15 p.m.	Greeting Words
[Kino]	Dr Carsten-Michael Walbiner (DAAD Regional Office Cairo)
	Lorena Mohr (Embassy of the Federal Republic of Germany to Egypt)
6.15-6.55 p.m.	INTRODUCTION TO THE PROJECT & SCIENTIFIC CONTEXT
	INTRODUCTION
40 min	Prof. Sabine Mueller (German University in Cairo/GUC) PRESENTATION
	"Using Space Technology in Water and Environmental"
	Assoc. Prof. Sherine Ahmed El Baradei (German University in Cairo/GUC)
6.55–7.10 p.m.	PRESENTATION & Approach of VeryNile to Water Sustainability
	"The Story About VeryNile"
15 min	INTRODUCTION OF THE ENTITY & PRESENTATION
	Farah Abdelbaki (VeryNile)
7.10–7.20 p.m.	CLEAN NILE PROJECT PARTNERSHIP
	"Water Sustainability: Bridging Science, Action and Design for a Clean
10 min	Nile"
	INPUT
	Carina Beyer (German University in Cairo/GUC)
	INPUT
	Marouan Emara (German University in Cairo/GUC)
7.20–7.35 p.m.	STUDENTS PROJECTS
15 min	Individual Approaches within the Clean Nile Project & Screenings MODERATION
	Marouan Emara (German University in Cairo/GUC)
	INPUT

Yaseen Geaisa Emara (German University in Cairo/GUC) &
Mia Pflieger (Dortmund University of Applied Sciences)
Zeina Ahmed (German University in Cairo/GUC) & Menna Ahmed (Dortmund University of Applied Sciences)
Mariam Mostafa (German University in Cairo/GUC) Joy David (Dortmund University of Applied Sciences)

7.35–7.55 p.m.	PANEL DISCUSSSION
	Recommendations for Future Partnerships (tbc)
	MODERATION
	Dr Carsten-Michael Walbiner (DAAD Regional Office Cairo)
	INPUT
	Prof. Sabine Mueller (German University in Cairo/GUC)
	Assoc. Prof. Sherine El Baradaei (German University in Cairo/GUC)
	Marouan Emara (German University in Cairo/GUC)
	Carina Meylene Beyer (German University in Cairo/GUC)

7.55–8.15 p.m. **Q & A Session** 

8.15–9.00 p.m. **EXHIBITION & JOINT NETWORKING DINNER** 

### **Biography of the Speakers**

#### Assoc. Prof. Dr Sherine Ahmed El Baradei

# Associate Professor, German University in Cairo (GUC)

Associate Professor, Sherine, Ahmed El Baradei holds PhD in hydraulics and irrigation engineering and MSc in environmental engineering. She was faculty at AUC and published over 30 researches in international journals and chaired the international ISEC-11 conference. She is a professional of UNOOSA, space4water and a member of COSIMENA at DAAD and of Cairo Climate Talks. She gives guest lectures at Missouri S&T and CalPolyPomona universities.

#### **Carina Meylene Beyer**

#### Lecturer, German University in Cairo

Carina Beyer received her Master's Degree in Photography from the CUT Free State, South Africa. Her field of research relates to indigenous mural art and vanishing cultures. She worked as a museum photographer whilst also tutoring at various design schools and universities throughout South Africa. She currently lectures photography at the GUC Cairo, in the Faculty of Applied Arts and Sciences, Department of Media Design. As a photographer, she is most interested in rendering landscape, botanical and fine art photography.

#### **Marouan Emara**

#### Lecturer, German University in Cairo

Marouan Omara is a filmmaker, educator, and film programmer dedicated to promoting Arab and African cinema. His films, which blend fiction and documentary, have garnered significant accolades, including recognition at major film festivals like Berlinale and IFF Rotterdam. Marouan also teaches film production at the German University in Cairo, inspiring new talent.

#### Farah Abdelbaki

#### Marketing Director, VeryNile

Ms Farah Abdelbaki is a GUC Alumus and with a Major in Entrepreneurship. She has been working in the environmental scene for 5 years with utmost passion

### **Introduction & Concept Note**

#### **Lecture Topic**

In this public lecture, we will show how photography as a visual story-telling medium, can act as a catalyst for environmental change by raising awareness of related concerns, in this case, the solid waste pollution in the river Nile; how the latter impacts its surrounds, and how it is being mitigated by a non-governmental entity attempting to solve the problem in its own unique and feasible way. Similarly, yet in a far more scientific manner, satellite imagery can be employed in the design of engineering systems that consider water pollution and actioning ways to address the problem at ground level per se. This highlights how two very different types of imaging systems each play a significant role in bettering our environment. The overall objective of this lecture is to show how environmental sustainability can be promoted at the academic level, by young designers, through inter-cultural cooperation in the field of design, particularly relevant when done in conjunction with non-university, industry and scientific partners. In explanation the lecture focuses on the recent Clean Nile cooperation involving the Faculty of Applied Sciences (Design) Dortmund, or rather Dortmund UAS and the GUC Faculty of Applied Sciences and Art (Media Design), the NGO VeryNile and the Nature Museum Dortmund, or rather Naturmuseum Dortmund, which was supported by 2023/4 DAAD Ta'ziz Partnership funding and took place in the period September – December 203. This lecture, which will overview said project in reference to current and relatable scientific methods, is organized in the COSIMENA framework cluster 'Water' and 'Cultural Heritage'.

#### Background

The responsibility of the Media Designer, and design in the broader sense, is to communicate information through a variety of platforms, whether digitally or in print. In this day and age, where problem-solving for a sustainable future is no longer a choice, but a must, the media designer for one has to put to task the skills and tools he or she has, to not only advocate for a sustainable environment, but actively participate in bringing about change. The role of imagery in this process does not have to be debated – it is a credible medium that has the power to influence social and scientific opinion, prompting actual change for a better world. The prerogative of the environmental engineer, similar to that of the designer, is to design systems that protect people, fauna and flora from adverse environmental effects and to improve the quality of our direct environment. To accomplish this, environmental engineers try to minimize the waste delivered to the environment either from its source or by using other techniques like recycling of disposed-off waste. Environmental engineers also work to improve public health by managing water and air pollution control. Because water is the essence of life and its pollution takes a toll on human health, engineers devised a very specialized field of engineering that merges the environment with water studies, so called 'environmental hydraulics'. Here the concentration of any pollutant, in any water body, at any time and position, can be traced. Hence waste-load-managing plans for that water body are developed to maintain good water quality.

Monitoring any pollutant in the environment; whether in air, water or soil is not always easily done in situ due to several difficult parameters and thus the use of space technologies; like satellites and remote sensing makes it easier for scientists to monitor pollutants in the environment, thereby counteracting its adverse effects, often even before these effects ever taking place. Leading into and providing scientific context to the Clean Nile project, will be water and environmental engineer Professor Sherine Ahmed El Baradei (Civil Engineering Program, GUC Cairo) with her discussion on water pollution in the Nile and how space technologies, like satellite imagery and remote sensing, can be employed as a tool to facilitate the collection of data that will be used in pollutants' sources modeling, planning and assessment. Professor El Baradei's concludes by proposing that space technology is a very important tool that can provide reliable and accurate data to water engineers, for them to mathematically model the pollutants in water, especially surface water like rivers. This is essential in designing and implementing a waste-load-allocation management plan for the river, determining which pollutants should be minimized and at which location in the river; this is to maintain the acceptable water quality of the river and not pollute it to a further extent. The discussion continues with another approach to environmental sustainability; later by VeryNile, an NGO based on Jazīrat al Qurşāyah, an island in the Nile vicinity of Downtown Cairo. A representative of VeryNile will relate their efforts to rid the Nile of solid waste pollutants, and how through their unique engagement with the local Qursaya community, they are not only cleaning the Nile "...one kilo at a time", but are working towards a socially- and economically uplifted community, and overall sustainability in the long run. This section concludes through a brief introduction to the Clean Nile project, specifically as it relates to VeryNile's involvement in the FH Dortmund and GUC Cairo partnership.

A brief sharing of the Clean Nile project partnership (Dortmund UAS – GUC Cairo) details follow. This is done by GUC Media Design lecturers Marouan Omara and Carina Beyer. They hand over to three student(s) / student teams: Yaseen Geeisa & Mia Pllieger, Zeina Ahmed, Menna Ahmed, Mariam Mostafa, and Joy David, who in brief will discuss their approaches to the Clean Nile photographic project; latter in conjunction with the screening of visual outcomes. The GUC discussion concludes with some recommendations as to future partnerships, and thanks of all funders, project partners, and role players.

### Organisers

#### **Deutscher Akademischer Austauschdienst (DAAD)**

It was in 1960 when the DAAD Regional Office was established based on the German-Egyptian Cultural Agreement. Since then, the academic relations between Egypt and Germany have evolved steadily. The close cooperation has unwrapped new horizons for the scientific bonds of both countries to further develop and flourish. Thousands of Egyptian scholars have benefited ever since from these ties. https://www.daad.eg/

#### Clusters of Scientific Innovation in the Middle East and North Africa (COSIMENA)

In the scope of COSIMENA the DAAD Office Cairo realises interdisciplinary events on current issues in science and innovation, such as workshops, conferences, roundtable discussions, the German Science Day, the COSIMENA Science Night and a Summer School. The several activities aim to bring together various stakeholders from science, business, government, and civil society. Especially scientists are promoted and supported through networking opportunities. *www.daad.eg/cosimena* 

#### German University in Cairo (GUC)

The German University in Cairo, GUC, is a bi-national Egyptian German Private University founded by the presidential decree 27/2002, according to law number 101/1992 and its executive regulations number 355/1996.

German university in Cairo (Deutsche Universität in Kairo) was established in 2002 in cooperation with the State Universities of Ulm and Stuttgart, under the patronage of the Egyptian Ministry of Higher Education, the Ministry of Science, Research and Arts, State of Baden- Württemberg, Germany, and supported by the German Academic Exchange Service (DAAD), the German Embassy in Cairo, the Arab/German Chamber of Industry and Commerce (AHK), the Federal Ministry of Education and Research, Germany, the State University of Tübingen, University of Mannheim and the Academy of Fine Arts Leipzig. GUC has a vision of building a leading center of excellence in teaching and research that will effectively contribute to the general welfare nationally and internationally and endeavor the scientific, technical, economic, and cultural cooperation between Egypt and Germany.

GUC is today considered Germany's largest transnational university worldwide and it is also the only integrated German university outside Germany that has 3 Bologna cycles, namely B.Sc., M.Sc. and Ph.D offering 71 study programs (31 undergraduate and 40 postgraduate). *https://www.guc.edu.eg/* 

# Organisers

#### VeryNile

VeryNile is the first initiative to develop sustainable means to clean the Nile while raising awareness of the importance of protecting our environment. VeryNile interlaces social and environmental impact and develops eco-friendly solutions to remove inorganic waste from the river. VeryNile is supported by: the Drosos Foundation, One Earth One Ocean and the Ministry of Environment.

### Impressum

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DAAD Außenstelle Kairo DAAD Regional Office Cairo 11 El-Saleh Ayoub St. off 26th July, Zamalek, 11211, Cairo

### Project Coordination

Nermine Abdelaty, DAAD Dr Yasmin Amin, OIB

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