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UAB SUSTAINABLE SMART CITIES
RESEARCH CENTER
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Under Auspice of Prof. Assem El-Gazzar, Minister of Housing, Utilities and Urban Communities

2ND NSF SUSTAINABLE SMART CITIES INTERNATIONAL WORKSHOP – EGYPT

“Sustainable Smart Cities in Arid Regions”

Marriott Hotel CAIRO: June 11th- 13th, 2019

Workshop Sponsored by: NSF Project: 1842325, OISE

Workshop Organized by:



National Science Foundation
WHERE DISCOVERIES BEGIN



SUSTAINABLE SMART
CITIES RESEARCH CENTER
The University of Alabama at Birmingham



OVERVIEW

The **2ND NSF Sustainable Smart Cities International Workshop** examines the challenges of advancing sustainable smart cities in arid regions and the roles governments should play in these efforts. It brings together researchers, practitioners, and government decision makers in a working group format to discuss issues and lessons learned, develop criteria for evaluating and promoting sustainability projects, and identifying potential international collaborations.

The **Sustainable Smart Cities Research Center at the University of Alabama at Birmingham (UAB SSCRC)** was awarded an NSF Grant to develop the 2ND Sustainable Smart Cities International Workshop in Egypt. This workshop is co-sponsored by the **Egyptian Housing and Building National Research Center (HBRC)** and **Alexandria University (AU)**.



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The University of Alabama at Birmingham



Welcome from National Science Foundation (NSF)



The **U.S. National Science Foundation**, with the assistance of the **U.S.-Egypt Joint Science and Technology Fund**, is pleased to co-sponsor the **2ND Sustainable Smart Cities International Workshop in Egypt**.

We hope this gathering of scholars and practitioners from the U.S., Egypt, other countries in the Middle East and North Africa, as well as the rest of the globe, will lead to collaborations that address the many important science and engineering challenges related to developing sustainable and smart cities. From these collaborations, we hope to see new research that engages communities and leads to publications as well as implementable ideas. The challenge is global, as is the expertise!



Lara Campbell, PhD
Program Director
National Science Foundation (NSF)

On behalf of the **National Science Foundation**, it is a pleasure for me to welcome you to the **Second Sustainable Smart Cities International Workshop held in Egypt**. Many activities surrounding science and engineering of common interest are being supported by funding from the U.S.-Egypt Science and Technology Joint Fund, and I wish to acknowledge their assistance in making these events possible. I would also like to acknowledge the co-sponsorship by the Egyptian National House and Building Research Center, Alexandria University, and the Arab Academy of Science and Technology. The first workshop in this sustainable smart cities series was held in 2017 in the city of Alexandria. Together with the results of this present meeting, these two workshops will contribute to the ongoing cooperation between the scientific, engineering, and educational communities of our two countries.

It is particularly apt that we meet in Egypt to discuss this theme of sustainable cities in arid regions. As home to the largest cities in the region, Egypt has always dealt with relative scarcity of water for the inextricably intertwined needs of its urban and agricultural systems. We hope to learn from this long experience, and how this experience has contributed to the recent efforts in urban planning. At this event in Cairo, we will hear from researchers and city project managers who can provide perspectives from Egypt, the United States, and elsewhere for the past and the future. I hope you look forward as I do to the discussions and interactions in the days ahead.



Paul Filmer, PhD
Program Director
National Science Foundation (NSF)

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Chairman's Welcome Message



FOUAD H. FOUAD, PHD, PE

Professor & Chair

Department of Civil, Construction and Environmental
Engineering

Director

UAB Sustainable Smart Cities Research Center
University of Alabama at Birmingham, USA

PI NSF Workshop Grant



Dear Colleagues,

On behalf of the University of Alabama at Birmingham (UAB), it is a tremendous pleasure and privilege for me to welcome you to the 2ND NSF Sustainable Smart Cities International Workshop, June 11th -13th. We are excited to have you here in Cairo, Egypt. Funded by the National Science Foundation (NSF), this workshop promotes interdisciplinary collaboration and exchange of knowledge and technology related to advancing sustainable urbanization and smart cities. This event will help establish future directions of research at the global level and enhance the potential for collaboration between our countries.

According to the United Nations' Commission on Sustainable Development, the current pace of urbanization is highest in developing countries, where one billion people live in urban slums lacking basic services and generating environmental degradation. However, the increased density in cities, also improves efficiency, spurs productivity and innovation. With the growing capacity for big data generation and analytics, as well as the advancement of information communication technologies and the Internet-of-Things – now more than ever we have the opportunity to understand and address the many challenges of urban life today and for the future.

The Sustainable Smart Cities Research Center at the University of Alabama at Birmingham (UAB SSCRC) provides an enabling platform to understand and transform the impact of urbanization at the scientific, economic, and human levels. SSCRC was awarded a grant from the US National Science Foundation (NSF) to organize this Workshop. A Steering Committee was formed and together with the NSF three thematic areas for the Workshop were identified; these are: sustainable housing, water management, and livability. These areas were selected because of their high impact on the region as well as globally.

I would like to acknowledge our collaborating leaders and participating entities for the important contributions to make this a successful event. A special thank you to our Egyptian partners and NSF Workshop coinvestigators: Dr. Essam Elkordi, President of Alexandria University; and Dr. Khalid Elzahaby, Chairman of the Housing and Building National Research Center (HBRC), for their dedicated efforts in the planning and implementation stages of this project. Finally a word of gratitude to the US National Science Foundation (NSF) for funding the Workshop and the excellent support provided by the program directors, Drs. Paul Filmer and Lara Campbell.

I warmly welcome all of you and wish you a very productive Workshop and a pleasant stay in Cairo.

Welcome Message from the President of Alexandria University



ESSAM ELKORDI, PHD

President

Alexandria University

EGYPT

Co-PI NSF Workshop Grant



As President of Alexandria University (AU) it gives me great pleasure to welcome you to this remarkable event and to Egypt, this unique country and cradle of civilization. Alexandria University is a leading university and serves the needs and aspirations in its community and surroundings, besides the whole of Egypt. The University is still celebrating, its 75 anniversary of excellent service to its community, environment, nation and region. Besides, AU is continuously expanding in branches and participation in Africa, the Middle East and elsewhere. In addition, we have strong ties and agreements with several leading universities and research institutions throughout the entire world, and our alumni are globally spread and are gracefully catering for their communities needs and many are in key positions. We value our successful academic and research affiliation with the University of Alabama at Birmingham (UAB) in several fields, and especially with the School of Engineering a collaboration that provides access to Biomedical & Civil Engineering doctoral programs for AU students and students from all Egypt, to graduate with degrees from both our institutions. We look forward to broadening the educational and cooperation programs with UAB to include also undergraduate programs, joint degrees, credit transfer, exchange of students in several other disciplines and currently we are effectively jointly working on that. Our joint cooperation in the Medical fields is another successful example.

Expanding scholarly partnership to develop joint research programs and practical solutions that benefit the society and the environment is one of our top priorities. This Second International Workshop on Sustainable Smart Cities, as its predecessor the First International Workshop, held in May 2017 in Alexandria, is an important step towards such goals, and fostering cooperation with international funding scientific agencies. AU is pleased to have co-organized, co-sponsored and effectively participated and shared in catering for scientific Egyptian contributions to these two international workshops, and looks forward to continuing in such path. The importance of Sustainable Smart Cities is profound, especially at a time where Egypt is establishing several new smart cities. An example is the iconic New Administrative Capital and Alamein New City, which will be in full operation shortly. These are practical applications of available Sustainable Smart Cities technologies. Furthermore, there are ongoing tremendous efforts to improve the quality of life and services in other existing cities, towards sustainable smart environments.

We thank the organizing entities especially University of Alabama (UAB) and National Science Foundation, and all contributing and sponsoring universities and entities, researchers, keynote speakers, technical papers presenters and the panelists, and all contributors for all their efforts. We look forward towards another successful event with sustainable practical outcomes.

We hope that you enjoy your visit and discover the beauty of our country and the warmth of its people and have an enjoyable safe trip.

Welcome Message from the Chairman of the Board of the Housing and Building National Research Center



KHALID ELZAHABY, PhD

Chairman of the Board

Housing and Building National Research Center (HBRC)
EGYPT

Co-PI NSF Workshop Grant



It is my pleasure as the Chairman of the Housing & Building National Research Center, HBRC, to welcome you in the magnificent city of Cairo.

Housing & Building National Research Center, HBRC is a governmental institute subordinate to the Ministry of Housing, Utilities and Urban Communities which started back in 1954 by 12 employees, while HBRC has now more than 1100 employees, 300 of which are M.Sc., and/or Ph.D. holders. HBRC is the sole entity nationwide responsible for issuing the Egyptian Codes (31) as well as technical specifications (21) in addition to providing periodical training for them. Training also extends to a variety of engineering subjects and it serves both public and private sectors. HBRC is interested in several national scientific research plans as well as researches leading to academic degrees. Moreover, HBRC hosts the Egyptian Green Building council, originated back in 2009. In this capacity, a rating system for new buildings, termed Green Pyramid Rating System (GPRS) was developed similar to other international rating systems. In addition, other rating systems have been prepared for hotels and banks. It is worth mentioning that all HBRC labs are 17025 accredited by the International Accreditation Services, IAS. One of the main activities of HBRC is serving the community through the assessment of mal-functioning structures nationwide as well as technically referring disputes between different parties. Moreover, HBRC is taking a substantial role in the quality control and construction supervision of the national projects.

The collaboration between University of Alabama at Birmingham, UAB, and Housing & Building National Research Center, HBRC, has started more than 15 years ago. The collaboration has taken place within diverse disciplines. HBRC sent graduate students to UAB, some of them achieved academic diplomas, UAB has sent group of students for 3 consecutive years for training at HBRC for durations between 2 and 4 weeks. We have shared the organization of international workshops and conferences and still a long way for more collaboration and achievements.

For our current workshop, I owe special thanks to Prof. Fouad H. Fouad and his very energetic team, NSF team and the organizing committee who exerted a great effort to materialize this workshop.

Wishing you all a very successful and beneficial workshop and wish you a pleasant stay and safe return.

Keynote Speakers



Dr. Sahar Attia

*Professor of Architecture
and Urban Design*
CAIRO UNIVERSITY



Dr. Alaa El-Zawahry

*Professor of Water Resources
and Environmental Engineering*
CAIRO UNIVERSITY



Dr. Wagida Anwar

Professor Faculty of Medicine
AIN SHAMS UNIVERSITY



Steering Committee



Sahar Attia, PhD
 Professor of Architecture and
 Urban Design
 Cairo University
 EGYPT



Lara Campbell, PhD
 Program Director
 National Science Foundation
 (NSF)
 USA



Nasser Darwish, PhD
 Professor of Civil and
 Structural Engineering
 Alexandria University (AU)
 (EGYPT)



Patricia J. Culligan, PhD
 Professor Civil Engineering
 Columbia University
 USA



Doaa Genena, M.D., PhD
 Lecturer and Clinical Nutrition
 Consultant
 Alexandria University (AU)
 EGYPT



Paul Filmer, PhD
 Program Director
 National Science Foundation
 (NSF)
 USA

Steering Committee



Fouad H. Fouad, PhD
 Professor and Chair
 Department of Civil, Construction,
 and Environmental Engineering
 University of Alabama at
 Birmingham (UAB)
 USA



Mona N. Fouad, M.D., PhD
 Professor and Director
 Division of Preventive Medicine
 University of Alabama at
 Birmingham (UAB)
 USA



Paula Alvarez Pino, MSCE
 Associate Director
 Sustainable Smart Cities
 Research Center
 University of Alabama at
 Birmingham (UAB)
 USA



Armistead G. Russell, PhD
 Professor of Civil and
 Environmental Engineering
 Georgia Tech
 USA



Andrew Sullivan, MSCE
 Associate Professor
 Department of Civil, Construction
 and Environmental Engineering
 University of Alabama at
 Birmingham (UAB)
 USA



Khaled Yousri, PhD
 Vice Chairman
 Housing and Building National
 Research Center (HBRC)
 EGYPT

Egyptian Co-Sponsors and Organizers



Essam ElKordi, PhD
 President
 Alexandria University (AU)
 EGYPT



Khalid ElZahaby, PhD
 Chairman of the Board
 Housing and Building National
 Research Center (HBRC)
 EGYPT



Workshop Objectives

The **objective of the 2nd NSF Sustainable Smart Cities International Workshop** is to facilitate open discussions and exchange of knowledge related to the challenges of advancing sustainable smart cities and the roles of national and municipal governments in those efforts.

The workshop is organized on the premise that the exchange of international experiences is beneficial for all parties. A discussion among government stakeholders, researchers, and implementing agencies compares evidence-based measures, identify best practices, and facilitates capacity-building through the national and international exchange of information.

The workshop will also clarify the roles of national and local governments in the implementation of sustainable cities, and develop criteria and performance metrics that those governments can use to identify and prioritize projects.

Specific Goals

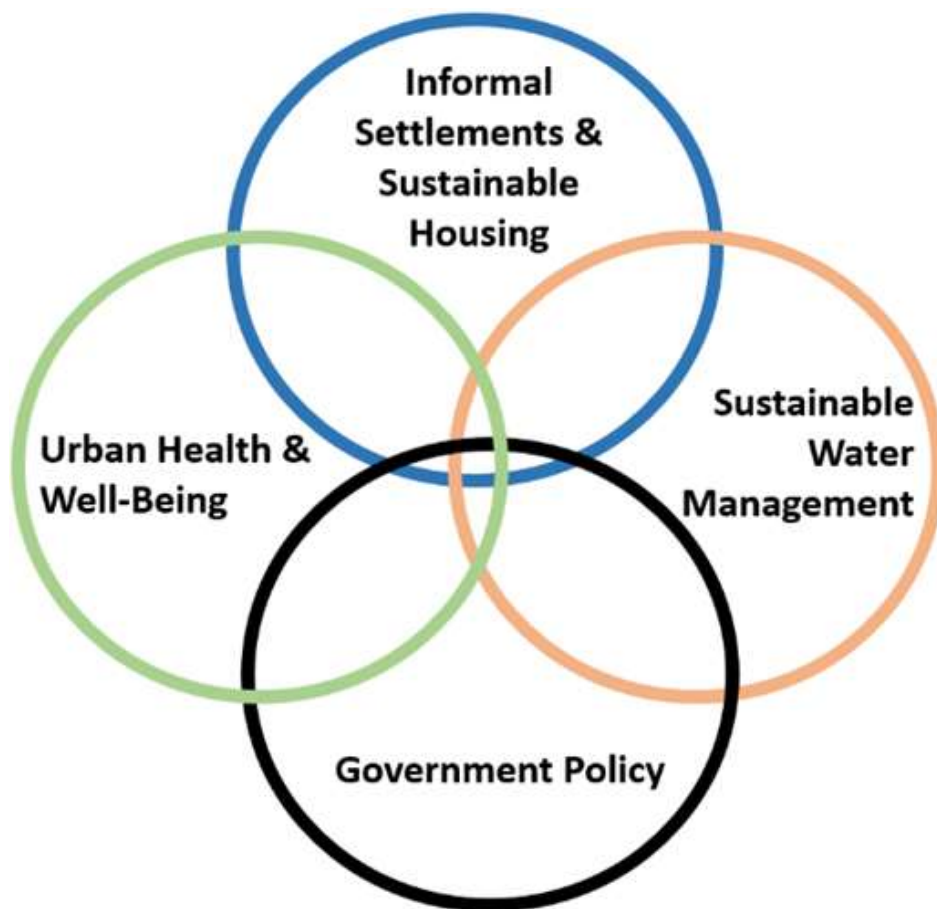
The workshop **promotes discussions on how to engage government entities and develop integrated policies for promoting and implementing sustainable practices**. The workshop has the following specific aims:



Thematic Areas

The workshop includes brief presentations on implementation experiences from the U.S. and Egypt, but the emphasis is on interactive working sessions among the participants. At least two-thirds of the workshop time is devoted to working sessions, interactive discussions, and the formulation of recommendations and workshop reports.

The workshop focuses on the themes of sustainable water management, informal settlements and sustainable housing, and urban health and well-being. Of particular interest is the nexus of these themes with development codes and policies, and the role of governments in encouraging the implementation of sustainable cities.



Thematic Areas

SUSTAINABLE WATER MANAGEMENT

Egypt and many arid regions face increasing water scarcity, exacerbated by population growth and demands by agriculture and industry. This theme will examine the integration of urban design with water management, water treatment, and water recycling. The working groups will explore the factors contributing to water scarcity in Egypt and the potential for sustainable infrastructure designs to ameliorate them. It will address the need for partnerships among government, researchers, and urban developers to reduce demands in the water system.

INFORMAL SETTLEMENTS AND SUSTAINABLE HOUSING

Informal settlements represent a significant challenge not only in Egypt, but worldwide. A response to a lack of affordable housing, they continue to grow in many areas despite government efforts to contain them. New approaches, however, hold promise to provide the housing needed by the urban poor and upgrade these areas. This theme will focus on current initiatives to upgrade informal settlements, what strategies have had the most success, and how principles of sustainability can be incorporated into those strategies. Of particular focus will be how the government can team with residents and researchers to provide sustainable solutions.

URBAN HEALTH AND WELL-BEING

This theme addresses the elements of a livable city and their influence on population health, from personal and behavioral health to societal/environmental factors. It will examine how neighborhood living conditions related to infrastructure, green spaces, physical activities, and food access may impact population health, and it will attempt to understand the relationship between smart, sustainable and livable cities and population health and wellbeing. Finally, it will explore the roles and responsibilities of key stakeholders (government, urban population, health care providers, etc.) and articulate the need for future collaboration.

Workshop Location

The workshop is being held in **Cairo** to facilitate participation by government stakeholders and researchers. The workshop is taken place in the **Cairo Marriott Hotel in Zamalek:**

<https://www.marriott.com/hotels/travel/caieg-cairo-marriott-hotel-and-omar-khayyam-casino/>

The rooms where the workshop will take place are the following: **Salon Vert, Memphis Salon and Empress Room**. All the rooms are located in the 2nd Floor.



Cairo Marriott Hotel & Omar Khayyam Casino

Website

Directions

Save

4.5 ★★★★★ 8,495 Google reviews

5-star hotel

BOOK A ROOM

Address: 16 Saray El Gezira St, Cairo Governorate 11211, Egypt

Phone: +20 2 27283000





Workshop Agenda at a Glance

JUNE 11TH		JUNE 12TH		JUNE 13TH		
AM	9:00 - 9:30 REGISTRATION (Salon Vert)	9:00 - 9:30 REGISTRATION (Salon Vert)	9:30 - 9:45 WELCOME (Salon Vert)	9:00 - 9:30 REGISTRATION (Empress room)	9:30 - 9:45 WELCOME (Empress room)	
	9:30 - 10:15 WELCOME (Salon Vert)	9:45 - 10:30 REPORTS WORKING GROUPS (Salon Vert)	AM	9:45 - 11:30 WORKING GROUPS SESSION 6 (Empress room)		
	10:15 - 10:45 OPENING REMARKS (Salon Vert)	10:30 - 12:00 WORKING GROUPS SESSION 3 (Salon Vert, Memphis Salon and Thebes Salon)		AM	11:30 - 12:00 COFFEE BREAK (Empress)	
	10:45 - 11:15 COFFEE BREAK (Salon Vert)	12:00 - 12:30 COFFEE BREAK (Salon Vert)			12:00 - 2:15 WORKSHOP DISCUSSION AND NEXT STEPS (Empress room)	
	11:15 - 1:00 KEYNOTE SPEAKERS (Salon Vert)	12:30 - 2:00 WORKING GROUPS SESSION 4 (Salon Vert, Memphis Salon and Thebes Salon)			2:15 - 2:30 CLOSING REMARKS (Empress room)	
1:00 - 2:00 LUNCH (Omars Cafe)		2:00 - 3:00 LUNCH (Omars Cafe)				
PM	2:00 - 2:15 GROUPS ORIENTATION (Salon Vert)	PM	3:00 - 4:15 WORKING GROUPS SESSION 5 (Salon Vert, Memphis Salon and Thebes Salon)			
	2:15 - 3:30 WORKING GROUPS SESSION 1 (Salon Vert, Memphis Salon and Thebes Salon)		4:15 - 4:45 COFFEE BREAK (Salon Vert)			
	3:30 - 4:00 COFFEE BREAK (Salon Vert)		4:45 - 5:45 REPORTS WORKING GROUPS (Salon Vert)			
	4:00 - 5:15 WORKING GROUPS SESSION 2 (Salon Vert, Memphis Salon and Thebes Salon)		5:45 - 6:00 CLOSING REMARKS (Salon Vert)			
	5:15 - 5:30 CLOSING REMARKS (Salon Vert)					

Workshop Agenda – DAY 1

Tuesday, June 11 – Workshop Day 1

9:00 am – 9:30 am	<u>REGISTRATION</u>
9:30 am – 10:15 am	<u>WELCOME AND WORKSHOP INTRODUCTION</u> <ul style="list-style-type: none"> ➤ Dr. Paul Filmer NSF Program Director ➤ Dr. Fouad H. Fouad Professor and Chair, Civil, Construction and Environmental Engineering at The University of Alabama at Birmingham
10:15 am – 10:45 am	<u>OPENING REMARKS</u> <ul style="list-style-type: none"> ➤ Dr. Essam ElKordi President, Alexandria University ➤ Dr. Khalid El-Zahaby Chairman, Housing & Building National Research Center
10:45 am – 11:15am	COFFEE BREAK
11:15 am – 1:00 pm	<u>REMARKS AND INTRODUCTION OF SPEAKERS</u> <ul style="list-style-type: none"> ➤ Dr. Nasser Darwish <u>KEYNOTE SPEAKERS</u> <ul style="list-style-type: none"> ➤ Dr. Sahar Attia (Egypt) “Smart Sustainable Cities within the Egyptian Context and Strategies” (30 minutes) ➤ Dr. Alaa El- Zawahry (Egypt) “Sustainable Water Management in Egypt – Background and Current Initiatives” (30 minutes) ➤ Dr. Wagida Anwar (Egypt) “Healthy Cities Initiatives in Egypt” (30 minutes)

1:00 pm – 2:00 pm	LUNCH
2:00 pm – 2:15 pm	<u>WORKING GROUPS ORIENTATION</u> ➤ Dr. Fouad H. Fouad
2:15 pm – 3:30 pm	WORKING GROUPS – SESSION 1 <u>Identification of Issues</u> <i>What are the major issues confronting Egypt and the Middle East in each theme area? What initiatives currently exist to address them?</i> ➤ Sustainable Water Management in Arid Regions ➤ Informal Settlements and Sustainable Housing ➤ Urban Health and Well-Being
3:30 pm – 4:00 pm	COFFEE BREAK
4:00 pm – 5:15 pm	WORKING GROUPS – SESSION 2 <u>Needed Research</u> <i>What gaps in knowledge exist and what research is needed to effectively address the major issues identified in Session 1?</i> ➤ Sustainable Water Management in Arid Regions ➤ Informal Settlements and Sustainable Housing ➤ Urban Health and Well-Being
5:15 pm – 5:30 pm	<u>CLOSING REMARKS – DAY 1</u> ➤ Dr. Fouad H. Fouad

6:30 PM – WORKSHOP RECEPTION AT MARRIOTT HOTEL, VERDI SALON

Workshop Agenda – DAY 2

Wednesday, June 12 – Workshop Day 2

9:00 am – 9:30 am	<u>REGISTRATION</u>
9:30 am – 9:45 am	<u>WELCOME DAY 2</u> <ul style="list-style-type: none"> ➤ Dr. Fouad H. Fouad
9:45 am – 10:30 am	<u>REPORTS FROM WORKING GROUPS AND DISCUSSION</u> <p><i>Each working group provides a 10 minute summary of deliberations from Day 1 to the plenary group. Discussion will follow.</i></p> <ul style="list-style-type: none"> ➤ Sustainable Water Management in Arid Regions (10 min) ➤ Informal Settlements and Sustainable Housing (10 min) ➤ Urban Health and Well-Being (10 min)
10:30 am – 12:00 pm	<p><u>WORKING GROUPS – SESSION 3</u> <u>The Role of Government (part 1)</u></p> <p><i>What is the role of government in promoting sustainability initiatives? How are projects currently prioritized?</i></p> <ul style="list-style-type: none"> ➤ Sustainable Water Management in Arid Regions ➤ Informal Settlements and Sustainable Housing ➤ Urban Health and Well-Being
12:00 pm – 12:30 pm	COFFEE BREAK
12:30 pm – 2:00 pm	<p><u>WORKING GROUPS – SESSION 4</u> <u>Opportunities for Collaboration</u></p> <p><i>Discuss models that would create more synergy between government, researchers, and practitioners. Suggest improved frameworks for evaluating and prioritizing projects.</i></p> <ul style="list-style-type: none"> ➤ Sustainable Water Management in Arid Regions ➤ Informal Settlements and Sustainable Housing ➤ Urban Health and Well-Being

2:00 pm – 3:00 pm	LUNCH
3:00 pm – 4:15 pm	<p>WORKING GROUPS – SESSION 5 <u><i>Opportunities for Collaboration (*Continued)</i></u></p> <p><i>Develop a list of potential research and implementation collaborations between Egyptian and U.S. participants. Identify collaborators, potential funding sources, and expected impacts.</i></p> <ul style="list-style-type: none"> ➤ Sustainable Water Management in Arid Regions ➤ Informal Settlements and Sustainable Housing ➤ Urban Health and Well-Being
4:15 pm – 4:45 pm	COFFEE BREAK
4:45 pm – 5:45 pm	<p><u>REPORTS FROM WORKING GROUPS AND DISCUSSION</u> <i>Each working group provides a 10 minute summary of deliberations from Day 2 to the plenary group. Discussion will follow.</i></p> <ul style="list-style-type: none"> ➤ Sustainable Water Management in Arid Regions (10 min) ➤ Informal Settlements and Sustainable Housing (10 min) ➤ Urban Health and Well-Being (10 min)
5:45 pm – 6:00 pm	<p><u>CLOSING REMARKS – DAY 2</u></p> <ul style="list-style-type: none"> ➤ Dr. Fouad H. Fouad

Workshop Agenda – DAY 3

Thursday, June 13 – Workshop Day 3

9:00 am – 9:30 am	<u>REGISTRATION</u>
9:30 am – 9:45 am	<u>WELCOME DAY 3</u> ➤ Dr. Fouad H. Fouad and Dr. Paul Filmer
9:45 am – 11:30 am	<u>WORKING GROUPS FINAL REPORTS – SESSION 6</u> <i>Working groups report on their discussions, findings, and recommendations from Day 1 and Day 2. Each working group provides a brief summary of their final report to the plenary group (30 minutes each)</i> ➤ Sustainable Water Management in Arid Regions ➤ Informal Settlements and Sustainable Housing ➤ Urban Health and Well-Being
11:30 am – 12:00 pm	COFFEE BREAK
12:00 pm – 2:15 pm	<u>WORKSHOP DISCUSSION AND NEXT STEPS – ALL</u> ➤ Moderated by Dr. Khaled Yousri, Dr. Paul Filmer and Dr. Fouad H. Fouad
2:15 pm – 2:30 pm	<u>CLOSING REMARKS</u> ➤ Dr. Fouad H. Fouad and Dr. Paul Filmer
Afternoon and Evening	<u>DEPARTURE</u> Participants depart to the airport the evening of June 13 th or the morning of June 14 th

Participants Profiles – EGYPT



MAY AL-IBRASHY

Founder and Chair

Built Environment Collective-Megawra

EGYPT

May al-Ibrashy is a licensed architectural engineer with 25 years of field experience in conservation and heritage management in Islamic Cairo. She is currently founder and chair of the Built Environment Collective-Megawra, a twin institution consisting of Egyptian NGO and consultancy working on issues of the built environment. She coordinates Athar Lina, an initiative run by BEC-Megawra in partnership with the Egyptian Ministry of Antiquities and Cairo Governorate that conserves the heritage of al-Khalifa in Historic Cairo and conceives of it as a driver for community development. She is also adjunct professor of architecture at the American University in Cairo.



AMAL FARAHAT ALLAM, Ph.D.

Professor

Parasitology Department in Medical Research
Institute – Alexandria University (AU)

EGYPT

I have received my BSC in biological science and PhD in Public Health parasitology and medical entomology. I am working as a professor of Parasitology and Molecular biology in Parasitology Department in Medical Research Institute, Alexandria University, Egypt. I worked as a vice Dean (2015) and an acting Dean of the Medical Research Institute (2017-2018). I was a principle investigator in several projects sponsored by the WHO. I have worked on molecular biology, experimental animal and nanotechnology (the results is prepared for publication). I published and reviewed several articles in peer-reviewed international journals. I presented my research in conferences in Egypt and Osaka, Japan.

Participants Profiles – EGYPT



WAGIDA ANWAR, M.D., PhD

Professor

Department of Community, Medicine; Faculty of
Medicine at Ains Shams University

EGYPT

Professor Wagida Anwar is graduated from Faculty of Medicine, Ain Shams University, Egypt in December 1977. She obtained her training from several institutions in different countries (France, USA, Japan, Germany, Sweden, Canada and Finland). As a General Coordinator of Health System Improvement Programs, Ministry of Health, Egypt since 2014, she contributed in Drafting the Social Health Insurance Law (SHI), National Health Policy and Health component of the Sustainable Development Strategy 2030, This was a continuation of her contribution in Health Sector Reform Program in Egypt (1996-2002).

She is the PI of several projects funded from different sources nationally and internationally. Internationally, she is a member of several Committee and Associations including Health Literacy Working Group, WHO Global Coordination Mechanism for The Prevention and Control of NCD (GCM/NCD), WHO since 2016, the Jury of the UNESCO - International Prize for Research in Life Sciences (Since 2009), Collegium Ramazini, Carpi, Italy since 2006 and President, Pan African Environmental Mutagen Society. Nationally, she is a member of several Committee at the Ministry of Health, Academy of Scientific Research and Technology and the National Women Council. She is the President of the Specialized Federation for Health System Improvement NGOs, since 2014 and President of the Specialized Federation of Scientific Research NGOs since 2013.

Professor Anwar received a number of international prizes and awards including Marie Curie, FP7, EC, (2008), Dr. A. T. Shousha Foundation Prize (WHO) for 2001, Fogarty International Fellowship Award, (1986) and the CEES Award, France (1986). Nationally, she received Ain Shams University Honorary Award, 2017, Egyptian National Award of the Academy of Sciences, (1992) and several other awards.

Participants Profiles – EGYPT



WALEED ARAFAT, M.D., Ph.D.

Professor

Clinical Oncology - Alexandria University (AU)

EGYPT

Waleed Arafat is a Professor of Clinical Oncology at Alexandria University, where he teaches, conducts research and offers medical care to cancer patients. He graduated from Alexandria University in 1988. After specializing in Oncology, he moved to the USA as he received doctoral and post-doctoral fellowships at the University of Alabama at Birmingham from 1997 till 2003. He then worked at St Jude Children hospital as a postdoctoral fellow 2003-2004. He currently has over 68 international publications aiming at a better treatment and care for cancer patients. Contact him at Waleed.arafat@alexmed.edu.eg



SAHAR ATTIA, PhD

Professor

Architecture and Urban Design at the Faculty of
Engineering – Cairo University

EGYPT

Dr. Sahar Attia, is currently an Emeritus Professor of Architecture and Urban Design at the Faculty of Engineering, Cairo University. She has been the Head of the Department of Architecture 2013-2017 in the same institution. She has more than 35 years of extensive experience in academia, practice and community activities. Aside of her teaching and research work at Cairo University, Dr. Sahar is the founder of the Associated Consultants, a multi-disciplinary consulting firm where she practices and studies her assignments contextually in order to design sustainable solutions, with a special focus on sustainable cities. She coordinated several national projects with Egyptian authorities as well as international partners. She is a member of the Supreme Council of Urban Development in Egypt. She is also a member in the Board of Directors of Ecocity Builders, a non-profit public benefit corporation in San Francisco, California-USA. Currently, she is chairing the steering committee for the Universities Network Initiative UN Habitat (UNI), and has been a member since its inauguration in 2011. She

Participants Profiles – EGYPT

represents UNI in the World Urban Campaign steering committee (WUC). She has been elected Co-chair for the Research and Academia Constituent group in the General Assembly of Partners for Habitat III(GAP) 2014-2017, working on the New Urban Agenda, she was a member of the Egyptian National Committee for Habitat3.

Her research interests include participatory approaches in Urban Development, Urban Regeneration, sustainable urbanism, and Upgrading the Informal Areas. She is the Co-Editor of: “Dynamics And Resilience Of Informal Areas: International Perspectives” published by Springer, 2016. Her most recent publication is a co-edition: New Cities and Community Extensions in Egypt and the Middle East, published by Springer 2018. She contributes as a member of the board of editors in several Journals



MAGDY AZAB

Owner and Managing Director

AZAB Architects

EGYPT

Magdi Naguib Azab, owner and managing director of AZAB ARCHITECTS, architectural firm established in Alexandria, Egypt 1978, design of many important buildings in Alexandria and Cairo, high-rise buildings, hospitals, schools and residential buildings, consultant to many real state and industrial companies, member of the Egyptian Union of Engineers and different social organizations. Graduated from Alexandria University School of Architecture 1976 Bsc Architect Married to Vivian Youssef with two children and two grand daughters. Past Multiple District Coordinator at Lions Clubs International Foundation 2009-2018, Past District Governor of the Lions Clubs International District 352 Egypt 2008-2009. Member of Automobile and Touring Club of Egypt and Alexandria Sporting Club. Interested in music, travel and community service.



MOHAMED ABDEL AZIZ

Advisor

Urban Planning & Geographic Information System
(GIS) – German International Cooperation (GIZ)

EGYPT

Participants Profiles – EGYPT

Mohamed Abdel Aziz is advisor for urban planning & Geographic Information System (GIS) in the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Urban Development Cluster. He has 15 years of experience in urban development. He is currently working on priority urban development issues related to informal settlement upgrading through Local Area Development Plan (LADP), develop participatory tools and methods, in addition to informing decision-making on the strategies of dealing with informal settlement within the wider urban management framework. In 2013 he completed his MSc of Integrated Urbanism and Sustainable Design from Stuttgart University and Ain Shams University, his master thesis name is “Developing Informal Areas through a Business Model”. He is currently a PhD candidate at Bauhaus University-Weimar at faculty of Architecture and Urbanism. His doctoral dissertation is “Integrated Participatory Development: Smart Employment for Urban Technology in Fast Growing Cities in Africa”.



NASSER DARWISH, Ph.D.

Professor

Civil and Structural Engineering Department –
Alexandria University (AU)

EGYPT

Dr. Darwish holds a PHD in Civil and Environmental Engineering from Cornell University and a BSc and MSc IN Civil Engineering from Alexandria University. He is a former Vice Dean of Faculty of Engineering at Alexandria University. He is a Fellow of the American Concrete Institute (ACI, USA) and he is the Founder and Chairman of ACI Egypt Chapter and Board Member & General Secretary of the Egyptian Concrete Association. He is considered a national and international expert in structural engineering, repair and renovation, as well as an authority in engineering and construction contracts arbitration. Dr. Darwish has performed and conducted the design, consultation and monitoring for most types of civil engineering projects in Egypt.

He has investigated several major national building failures, and major projects and contracts disputes. Dr. Darwish initiated and coordinated several scientific and cultural agreements between AU and renowned US universities, including the University of Alabama at Birmingham (UAB). He has led several scientific committees, and is frequently invited as keynote speaker for international conferences. He was selected by ISO International to evaluate international building codes. He has served as a Member of: the Egyptian Council of Engineering Sciences; the Egyptian Academy of Scientific Research; Standing Real Estate Appraisal Standards Committee; Board Supreme Council of Egyptian Syndicate of Engineers.

Participants Profiles – EGYPT



NABIL DOWIDAR, M.D., Ph.D.

Professor

General Surgery, Medical Research Institute –
Alexandria University (AU)

EGYPT

Dr. Nabil Dowidar is a Professor of General Surgery, Medical Research Institute, Alexandria University. He graduated from the Faculty of Medicine, Alexandria University, Egypt. He received his postgraduate clinical training in Alexandria, Edinburgh and Copenhagen. Dr Dowidar has a clinical interest in gastrointestinal endoscopy. Dr Dowidar is a keen advocate of patient safety and good governance and has recently established a diploma in health governance. During his professional career Dr. Dowidar had several administrative posts including Dean of the Medical Research Institute. He currently run a health governance program in Alexandria University.



ADEL EL MENCHAWY, Ph.D.

President Assistant for Architectural Affairs

Arab Academy for Science and Technology and
Maritime Transport (AASTMT)

EGYPT

Dr. Adel El Menchawy is a professor of Urban Planning and Design since 2008. He holds a PhD in Architecture from Alexandria University (1997), and completed graduate studies in Urban Planning in Arizona State University (USA). He has been a guest lecture at university of western Australia (Perth); Macquarie University (Sydney), Universidad de Valladolid, Spain; Beirut Arab University, and Alexandria University. He was the Chairman of Architectural and Environmental Design Department (2013-2015). He Teach & Practice; Sustainable Development, Architecture Design, Construction Management, Urban planning & Design. He has an extensive experience of senior leadership of academic and professional experiences. He is a member of many professional affiliations in USA, Canada, Arab Countries, and Egypt.

Participants Profiles – EGYPT



NANCY ABD EL-MONEIM, PhD

Assistant Professor

Arab Academy for Science and Technology and
Maritime Transport (AASTMT)

EGYPT

Nancy M. Abd El-Moneim is an Egyptian Architect, holding a Ph.D. in Architecture from Cairo University (2011-2016) from where she also received her Bachelor of Architecture (2000-2005). She obtained her master's degree from the school of Economics at Catania University (2007-2008). Her previous research includes issues related to Informal Settlements and governmental policy toward it. She worked four years for The Informal Settlement Development Fund (ISDF). Abd El-Moneim is interested in the process of resettlement projects and their effect on dwellers' social and economic quality of life. She has worked on many documentation and restoration projects all over Egypt. She has recently begun to take steps forward in her research towards women rights' in the city. She is currently an Assistant Professor at the Arab Academy for Science Technology and Maritime Transport, where she teaches classes in Urban Design, the History of Architecture, and the Graduation Project Studio. She also teaches a post-graduate course titled "The Environment and Human Behavior." She is a member of the Board of Editorial Advisors of the Research Journal of the Department of Archaeology at Hazara University-Mansehra-Pakistan. She is also a reviewer for the Urban Studies Journal-Sage Publication. She has several publications related to the enhancement of human quality of life within a variety of contexts.



MOHAB ELREFAIE, Ph.D.

Associate Professor and Senior Policy Advisor

Ain Shams University
German International Cooperation (GIZ)

EGYPT

Dr. Elrefaie is an associate professor of Urban Planning at the Faculty of Engineering, Ain Shams Uni. Cairo. Besides his academic works he is a Senior Policy Advisor, of GIZ_ Urban Development Cluster in Egypt, and responsible for the urban policy framework in cooperation with the Ministry of Housing Utilities & Urban Communities.

Participants Profiles – EGYPT

Dr. Elrefaie has accumulated expertise in strategic planning, informal settlements upgrading, institutional development and geo-spatial Information management over a period of 25 years. He has been active in researching, and conduct trainings in these, directly related, topics to sustainable urban development such as; applying participatory approaches and systems thinking to community development and poverty alleviation. Effective land management, encouraging decentralization and utilizing GIS on local levels were also on the top of the main focuses of his research and practical work.



DOAA EL-SHERIF, Ph.D.

Professor

Environmental Planning and Urban Management
at the Housing Department – Housing and Building
National Research Center (HBRC)

EGYPT

Prof. Dr. Doaa El-Sherif is a Professor of Environmental Planning & Urban Management at the Architecture & Housing Department of the Housing & Building Research Center (HBRC), of the Ministry of Housing, Utilities & Urban Development of Egypt, with 35 years of academic and professional experience. Prof. El-Sherif is a trainer, capacity building and institutional development specialist, researcher, and urban planner. Her major fields of expertise include Urban Environmental Management, Strategic Urban Planning, Community Development, Sustainable Urban Development, Environmental Impact Assessment, Solid Waste Management, Public Private Partnerships, and Training of Trainers (TOT). Currently she is the Executive Director for Training & International Cooperation at the Urban Training Institute “UTI”, affiliated with HBRC. In addition, she is the General Supervisor of the “Building Codes Training Department” of HBRC. She is also a member of the Egyptian Green Building Council (GBC). Prof. El-Sherif is a member of the technical standing committee preparing the “Egyptian Smart Cities Code” and the committee preparing the “Indoor Environmental Quality Code”. Moreover, Prof. El-Sherif was the Team Leader & Project Manager of Strategic Urban Plans of multiple Small Egyptian Cities under a UN-HABITAT project. She has been managing also a number of consulting projects executed by international organizations such as Danida, GIZ, Dutch institutes, UNDP and UN-HABITAT. Prof. El-Sherif is supervising MSc & PhD students at multiple Universities, as well as being a recognized external examiner in Egypt and Malaysia. Her list of publications included a number of reference books in English and in Arabic and numerous research papers as well as technical articles in international conferences. She is also an invited guest speaker at ASHRAE European Region events.

Participants Profiles – EGYPT



ALAA EL-ZAWAHRY, Ph.D.

Professor

Water Resources and Environmental Engineering,
Faculty of Engineering - Cairo University

EGYPT

Professor of Water Resources and Environmental Engineering, Faculty of Engineering, Cairo University. PhD and M.Sc, Civil Engineering, McMaster University, Ontario, Canada. **B.Sc.** Civil Engineering Cairo University Faculty of Engineering, Giza, Egypt.

Member of the Tri-Partite Egyptian National Committee (TNC) formed to study the Impacts of the Ethiopian Dam/ Renaissance Dam on Downstream Countries. International reviewer of UNDP. Dr. El Zawahry has more than 40 years of experience in the field of civil engineering, specialized in water resources, urban hydrology, and water quality modeling. Teaching and practical experience jointly form deep wide knowledge in his field of specialization. He worked as a consultant in Egypt and abroad participated in many (150) projects dealing with flash floods, Dams, drainage structures, storm water systems, groundwater works, sewer systems, irrigation networks, irrigation structures and water and wastewater treatment plants. Dr. Elzawahry has published more than 60 papers articles and Book chapters in the same field.



FARIDA FARAG

Advisor

Urban Cluster - German International Cooperation
(GIZ)

EGYPT

Farida Farag is an advisor at the GIZ Participatory Infrastructure Project under the Urban Cluster. She has been part of GIZ Egypt for 3 years with experience in Climate Change and Urban Resilience, as well as Participatory methods and planning. Her current work is focused on supporting the development of Local Area Development Plans for selected urban informal areas using participatory tools and frameworks. She completed her masters is Building and Urban Design in Development at University College London in 2011.

Participants Profiles – EGYPT



HEND FAROUH, Ph.D.

Professor

Environment and Sustainable Design – Housing and
Building National Research Center (HBRC)

EGYPT

Dr. Farouh is a Professor of Environment and Sustainable Design at Egypt's Housing and Building National Research Center and Currently the national project manager of Grid Connected Small-Scale Solar Systems (Egypt – PV) implemented by the United Nation Development Program (UNDP) and the Industrial Modernization Centre (IMC). She was the former executive director of the "Central Unit for Sustainable Cities and Renewable Energy" in the New Urban Communities Authority (NUCA) where she was responsible for supporting planning, designing, constructing and operating green sustainable urban communities focusing on renewable energy, energy and water efficiency, waste management, sustainable transport, and green construction systems. Dr. Farouh has graduated from Faculty of Engineering, Assiut University "Very Good with Honor Degree" and obtained her Master and PhD in environmental design, Faculty of Engineering, Cairo University. She is licensed for Egypt as a European Energy Manager (Eurem) and has completed a post doctorate studies in "Green Technologies for Environmental Planning & Design ", Politecnico di Torino, Italy. Dr. Farouh has more than 21 years of experience in sustainable design & urban development, implementing sustainability strategy, and fostering community participation to support such endeavors. She is specialized in interdisciplinary development projects national & international and she is a team leader of Green Pyramid Rating System for sustainable community version and administrative and financial institution version as well.



BASMA GABER

Senior Advisor

Urban Development Cluster – German International
Corporation (GIZ)

EGYPT

Basma Gaber is a senior advisor in the GIZ Urban Development Cluster. She has nearly 15 years of experience in program planning and evaluation in the fields of institutional and

Participants Profiles – EGYPT

community governance mechanisms, capacity development and active participatory approaches. Her work is focused on the review of existing operational and non-operational linkages between governmental entities on both vertical and horizontal (peer) levels as well as enhancing such linkages in the urban upgrading processes. She completed her Master's degree in Environment & Sustainable Development at the Development Planning Unit, University College London in 2008.



OMAR MOHAMED GALAL

Lecturer

Arab Academy for Science Technology and
Maritime Transportation (AASTMT)

EGYPT

Omar Mohamed Galal is currently a PhD candidate at the Technical University of Berlin. His working PhD title is "The Relation between Morphology of Neighborhoods and their Ability to Depend on Solar Energy: Case Study New-Aswan". He got his Masters of Science degree in Architectural Engineering at Cairo University. The masters thesis interest was in the field of urban planning theories and was titled "Utopian Thinking and its Applications in Urban Planning". He also holds a Bachelor Degree in Architectural Engineering from the Higher Institute of Engineering of El-Shorouk. His main research interest is related to the reinterpretation of Urban Form and Space within the context of current local and global challenges faced by Egypt especially on the environmental level. Topics like urban morphology, energy efficient urban forms, utilizing renewable energy within the urban settlements, and creatively addressing the topic of public transportation within the city are all related to his interest. This was reflected on diverse publications. Msc. Galal is currently collaborating with researchers from Freie Universität Berlin, Tokyo Institute of Technology and Aswan University on miscellaneous research projects as well. On the other hand, he has an experience in architectural design. Not only has he been a member of the design team of Dar El-Handasah for two years, but he also collaborated with diverse range of consultancy, real state developers and construction entities as well. Furthermore, he has participated in and won various architectural and urban design competitions. Currently, he is an Assistant Lecturer at Arab Academy for Science Technology and Maritime Transportation (AASTMT) where he participates in teaching classes in Architectural Designs, Graduation Project, Urban Design and Urban Planning.

Participants Profiles – EGYPT



LANIA ABDEL GALIL, Ph.D.

Professor

Department Architectural Engineering and
Environmental Design – AASTMT

EGYPT

Rania Abdel Galil holds a PhD in Town and Regional Planning from Sheffield University, UK and currently is a Professor at the Department of Architectural Engineering and Environmental Design, AASTMT, Egypt. She is the Associate-Editor of the Journal of Renewable Energy and Sustainable Development and an Editorial board member of the International Development Planning Review Journal (UK). Rania has published over 30 research papers and works in international research projects. Her research interests are the sustainability of our cities and the North/South divide.



DOAA GENENA, M.D., Ph.D.

Lecturer and Clinical Nutrition Consultant

Medical Research Institute – Alexandria
University (AU)

EGYPT

Dr. Doaa is a Lecturer and Clinical Nutrition Consultant at the Medical Research Institute (MRI) at Alexandria University, Egypt. She is Director of the Training Program (internships) for the graduates of the Nutrition Department at Pharos University in Alexandria, where she has also served as Lecturer in the Department of Nutrition and Dietetics. She earned her PhD in public health nutrition (2011) from the High Institute of Public Health - University of Alexandria in Egypt. Recently in 2018, she was recognized as an LLL teacher by the European Society of Clinical Nutrition and Metabolism (ESPEN) and a Certified instructor by the World Obesity Federation (Scope).

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In addition to courses taught at PUA, she has participated in structuring and teaching many clinical nutrition courses and workshops for graduate students organized for the Egyptian Nutrition and Health Coaching Association, National Nutrition Institute, Alexandria Medical syndicate, the Medical Research Institute, the High Institute of Public Health and Police Hospital - Egypt. Topics included: obesity management (accredited by the World Obesity Federation - Scope), cancer nutrition, medical nutrition therapy for diabetes mellitus, gastrointestinal and hepatobiliary disorders, nutritional therapy for gout, and applied nutrition (practical case studies).

She has served as participant, moderator, and speaker in several national and international conferences (Egypt, Jordan, USA, Lebanon, Dubai, and Spain), and was the head of the scientific committee for the third (2014), fourth (2015), fifth (2016), and sixth (2017) NutriAlex Conferences - the Egyptian Nutrition and Health Coaching Association conferences held in Alexandria, Egypt. Her research interests include public health and nutrition, namely obesity, nutritional therapies for DM, metabolic syndrome, polycystic ovary syndrome, cancer, renal diseases, liver and gastrointestinal disorders, pediatric neurological and metabolic disorders, and nutrition support for hospitalized and critically ill patients. She has published articles in national and international journals.



BAKR MOHAMED GOMAA, Ph.D.

Assistant Professor

Arab Academy for Science and Technology
(AASTMT)

EGYPT

Bakr is a senior architect and researcher in the field of natural ventilation in the built-environment with numerous articles and papers published in journals and presented at conferences. Bakr won two grants to conduct research about environmental issues in the city of Alexandria. He has supervised a number of masters and PhD theses in matters related to energy conservation in architecture and the built environment. Currently Bakr is a full time university assistant professor in the Arab Academy for Science and Technology in Alexandria Abu Qier Campus.

Participants Profiles – EGYPT



NERMEEN IBRAHIM, M.D., Ph.D.

Assistant Professor

High Institute of Public Health – Alexandria
University (AU)

EGYPT

Dr. Nermeen Ibrahim is currently an Assistant Professor of Epidemiology, Director of Media and Information Center, and Co-Vice Dean of the High Institute of Public Health (HIPH) for Community Development and Environmental Affairs/ HIPH/Alexandria University. Dr. Ibrahim is interested in public health promotion and prevention of diseases through her different titles. She tutors in research methodology and epidemiology non-communicable diseases including injury and physical activity epidemiology, as well as some areas of communicable disease epidemiology, and supervises various theses addressing these areas. She organizes symposia and health events, the latest was for celebrating the World Health Day under the title of 'Health For All By All', and conferences the latest of which -the 9th conference of the High Institute of Public Health- was titled "Health in All Strategies". She was also involved in organizing various medical convoys held by the HIPH. Being the Director of the Media and Information Center and interested in the role of media in health promotion and prevention of diseases, she started official awareness groups and pages affiliated to the HIPH and Alexandria University through different media platforms.



MOSTAFA REFAT AHMED ISMAIL, Ph.D.

Director

Credit Hours Engineering Programs at the Faculty of
Engineering – Ain Shams University

EGYPT

Mostafa Earned his B.S. from Ain Shams University (1994) with distinction and honors and holds his Ph.D. degree from the School of Architecture and Building Engineering at the University of Liverpool, UK (2003). He worked at EPSRC funded projects and lectured at the University of Liverpool until 2006. Dr. Mostafa has taught many courses related to architectural building services and technical studies at European and Egyptian Universities at both the undergraduate and graduate levels. He served as the General Manager at the Technical Affairs Department,

Participants Profiles – EGYPT

New Urban Communities Authority NUCA, Ministry of Housing and Urban Development, Egypt. He has published numerous papers in professional journals and international conferences, as well as contributed to several books. He is a Visiting Scholar, Department of Architecture, University of Liverpool, UK. Many postgraduate students have been successfully supervised by him for research towards the degrees of MPhil and PhD. He is an academic referee for several International and national journals. Mostafa currently serves as the Director of Credit Hours Engineering Programs at the Faculty of Engineering, Ain Shams University, where he also leads as a Director to its International Collaboration Office. His area of research involves Acoustics, sound transfer, outdoor noise propagation, sustainable design, energy transfer modelling, building performance, and experimental scale modelling.



MARIANNE MAKAR

Advisor

Egypt Participatory Infrastructure Programme -
German International Corporation (GIZ)

EGYPT

Marianne Makar is a junior advisor at GIZ Egypt Participatory Infrastructure Programme where she works on local area development plans for informal settlements in Greater Cairo Region. Marianne holds a bachelor degree in architecture engineering from British University in Egypt since 2011. She then pursued a masters degree in Building and Urban Design in Development from University College London in 2014. Other than GIZ Marianne worked in development with REALL based in UK where her work focus concerned numerous African and Asian countries facing urban challenges, specifically housing.



HOSSAM MOGHAZY, Ph.D.

Former Minister of Water Resources and Irrigation

Head of Irrigation Engineering and Hydraulics
Department – Alexandria University (AU)

EGYPT

Dr. Moghazy is the former Egyptian Minister of Water Resources and Irrigation, serving in that role from 2014-2016. During his term at the ministry, he initiated and supervised numerous major projects, including the Nile River Rescue Campaign, national programs to prevent flash

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flooding in the South Sinai and Upper Egypt governorates, and a program to improve water quality in Manzala Lake.

He is an expert in the fields of groundwater, irrigation, and drainage engineering. He currently heads the Irrigation Engineering and Hydraulics Department at Alexandria University and has published 5 books and over 44 journal articles. He is editor of the Alexandria Engineering Journal and is a member of the faculty Engineering Council at Alexandria University.



KHALIL SHAAT

Senior Policy Advisor

German International Cooperation (GIZ)

EGYPT

Mr. Shaat holds a BA in business administration from University of Maryland and a BA in Law from Cairo University. Mr. Shaat is a senior policy advisor at GIZ (German International Cooperation), the Cairo Governor's advisor, and a senior contract administrator. During his 30 years of professional experience, he negotiated and drafted several contracts in different businesses' discipline and participated in several Dispute Adjudication Boards, Mediations as well as institutional and Ad-hoc Arbitration cases. Mr. Shaat is a Certified Mediator and Trainer by CEDR (Centre for Effective Dispute Resolutions – London). Mr. Shaat participated in drafting the Mediation Rules of the Cairo Regional Center for International Commercial Arbitration and the drafting of the Balanced Contract for Public Works in Egypt. Mr. Shaat is a key person in outlining the current vision for the development of the informal areas within Cairo governorate as well as he is currently involved in many mega projects in Cairo to reshape and upgrade the Urban Fabrics and upgrade major informal areas with proper community participation and a defined business model. Mr. Shaat is active in community participation related to development works and involved with local youth groups and NGOs for efficient role in the development activities to integrate within the local administration. He is a member of many professionals' associations in UK, USA and Egypt.

Participants Profiles – EGYPT



AZZA A. SIRRY, Ph.D.

Professor and Director

Professor of Urban Planning – Housing and Building
 National Research Center (HBRC)
 Director of Metropolis Training Institute for Africa
 and Middle East

EGYPT

Azza Sirry is a Professor of Urban planning at the Housing and Building National Research Center HBRC, Cairo and director of Metropolis training institute for Africa and the Middle East. She has 35 years of extensive academic and practical experience in the fields of urban planning, urban management, and informal settlement upgrading and infrastructure management. She has prepared strategic plans for several cities, villages and informal areas. She lectures at several universities and is a training adviser with extent experience in urban issues. Dr. Sirry maintains an active research agenda that examines urban planning and housing issues. She has several published papers and is the author of a Book, " local practices in urban management in secondary cities in Egypt, case of Belbeis", published in English and Arabic 2003. She has been a jury member for Metropolis Award 2014, and Guangzhou award year 2014. She has supervised and has been a jury member for several masters and Ph.D. researches. Dr. Sirry holds PhD. and MSc. in Urban planning, Cairo University and a BSc. in Architecture engineering, Cairo University. She has taken PhD. program studies at University of Pennsylvania, USA and has been a visiting scholar at Liverpool University. She has attended several training courses in IHS, ITC, HDCO Singapore and JICA, Japan.



MARWA AHMED SOLIMAN, Ph.D.

Manager

International & Local Funding Department and
 Technical Supporter Coordinator – Informal
 Settlements Development Fund (ISDF)

EGYPT

Marwa Ahmed Soliman has about 20 years of experience as an urban planner and designer. Currently, she works as the manager of the international & local funding department and as a technical support coordinator for projects at the Informal Settlements Development Fund (ISDF). She also serves part-time as a lecturer of urban design at the Arab Academy for Science,

Technology & Maritime Transport (Architectural Engineering and Environmental Design Department). She obtained her PhD in architectural engineering from Cairo University. Her PhD focused on the “Effectiveness and Enforceability for Strategic Planning to Egyptian Local Realities”. Her MSc. was titled “Elements of Urban Design & Visual Perception for City's Approach”. Through the years Marwa’s work has focused on participatory planning, strategic planning for cities and villages, and local action plans for informal areas. She is responsible for preparing and reviewing technical reports and formulating action plans for developing informal areas and markets. Currently, she coordinates and supports projects funded by international agencies such as GIZ, UN –HABITAT, African Development Bank (AfDB), and Italian Agency. She has also contributed as a panelist / attendee in diverse local and international conferences and workshops (Egypt, Canada, Germany, and Morocco) to enhance and exchange knowledge and practical experiences.



MOHAMED TAREK SOROUR, Ph.D.

Professor

Sanitary Engineering, Faculty of Engineering –
Alexandria University (AU)

EGYPT

Dr. Tarek Sorour has 10 years of professional experience with the UN as a Chief Technical Adviser – Water Resources/ Wastewater Engineering – FAO/UN. He has more than 22 years of professional experience in development projects in fields of water, wastewater, sanitation, and infrastructure in many countries of the Middle East (Saudi Arabia, Yemen, Syria, Sudan, United Arab Emirates, Lebanon, and Jordan). Dr. Sorour has experience as a freelancer consultant with World Bank, Habitat/UN, Dornier/Schneider Consulting and Suze Consulting. He also has Professional experience in designing biological wastewater treatment plants using computer simulations (Activated sludge process, stabilization ponds, Membrane Bio Reactors, etc.). He participated in dialogue with Government executive officers in the field of water reforming policies through many international funded projects (Saudi Arabia, United Arab Emirates, Yemen, Syria, and Egypt). Capacity building in the field of water and wastewater e.g. conducted several training courses on WW treatment and reuse for national relevant staff of in many countries in the Middle Eastern region such as the Kingdom of Saudi Arabia, Yemen, Syria, Egypt, and the UAE. Dr. Sorour published more than 35 scientific articles on wastewater engineering and water pollution control.

Participants Profiles – EGYPT



KHALID YOUSRI, Ph.D.

Vice Chairman

Housing & Building National Research Center (HBRC)

EGYPT

Doctor Khalid M. Yousri is Professor of Properties and Strength of Materials. Currently, he is Vice Chairman for Research and Studies Affairs at Housing & Building National Research Center, Ministry of Housing, Utilities and Urban Development, Egypt since 2011. Dr. Khalid is Consultant Engineer with over than 25 years' experience in the areas of concrete technology, construction materials, ready mixed concrete and construction methods. His expertise includes problem solving, testing and repair of structures, rehabilitation and strengthening of corroded reinforced concrete structures, quality control & assurance, specifications, nondestructive evaluation, and research. He is an author with numerous articles and he refereed tens of Ph.D. and M.Sc. theses as an external examiner in Cairo University, Tanta University, and American University in Cairo. Moreover, Dr. Khalid is a member in different codes and committees, such as Code of Ethics for Engineers, Code of Quality of life, Code of Designing and Executing Reinforced Concrete Structures. He is member in ASTM committees, C01 on Cement, C09 on Concrete and Concrete Aggregates, C14 on Glass and Glass Products, C21 on Ceramic White wares and Related Products and C24 on Building Seals and Sealants. His background as a researcher and builder provides a solid basis of technical and practical knowledge in the field of construction industry.

Participants Profiles – EGYPT



RANIA EL SHARKAWY, M.D., Ph.D.

Assistant Vice President

Alexandria University (AU)

EGYPT



ALAA ELDIN AHMED OSMAN, M.D., Ph.D.

Deputy Minister of Health

EGYPT



ALAA ELDIN RAMADAN, M.D., Ph.D.

**Vice President Community Service and Environment
Development**

Alexandria University (AU)

EGYPT



ABDEL HAMID TAWFIK, M.D., Ph.D.

Consultant of gynecology and Obstetrics President

Rotary Alexandria Rahmel

EGYPT

Participants Profiles – US TEAM



LORI BATEMAN, Ph.D.

Instructor

Division of Preventive Medicine, University of
Alabama at Birmingham (UAB)

USA

Lori Brand Bateman, Ph.D., R.D. is an Instructor in the Division of Preventive Medicine at the University of Alabama at Birmingham. Dr. Bateman, a medical sociologist and a dietitian, has extensive experience in program development, nutrition education, individual behavior change, and health care ethics in both academic and clinical settings. Her current research focuses on reducing health disparities through impacting the social determinants of health, using qualitative and community engaged methodologies. Currently, she is the Program Director of the Obesity Health Disparities Center, a National Institute of Minority Health and Health Disparities (NIMHD)-funded U54 that seeks to reduce obesity-related health disparities in Alabama. Further, she is serving as Program Manager for the Transdisciplinary Collaborative Center for Colorectal Cancer Research, a project funded by the U.S. - Egypt Science and Technology Joint Fund. She is also co-investigator of a study that seeks to reduce violence using a social ecological framework in a disadvantaged, high crime neighborhood. She has been named fellow in the Healthcare Ethics and Law Institute of Samford University and a Recognized Young Dietitian of the Year for the state of Louisiana.



CHRISTOPHER CALOTT, AIA

Architect and Chair

Real Estate Development, Architecture &
Urbanism - University of California, Berkley

USA

Christopher Calott, AIA is an award-winning architect, urban designer, academic and real estate developer. He is the Lalanne Chair in Real Estate Development, Architecture & Urbanism at University of California, Berkeley, and the Faculty Director of a new Master of Real Estate Development + Design Program which he founded in 2018. Prior to Berkeley, Calott was the Director of the Master of Sustainable Real Estate Development Program at Tulane University, where he developed a curriculum in “regenerative development”, working in post-Katrina New

Participants Profiles – US TEAM

Orleans, and throughout the United States. Additionally, he has pursued significant research in the areas of urban design, affordable housing, informal settlements and urban sustainability through community-based projects and published investigations tied to teaching appointments at numerous Universities throughout the United States, Mexico and Latin America. His current professional practice engages real estate developers and municipal agencies working on large redevelopment projects in the Bay Area which seek sustainable urban design solutions and more socially equitable outcomes to housing and community development projects. Calott holds a Bachelor of Arts, Honors, in Urban Theory and Design from Brown University, he received his Master of Architecture degree from Princeton University, and was awarded a Loeb Fellowship at Harvard University's Graduate School of Design in 2011-12.



PAUL FILMER, Ph.D.

Program Director

Office of International Science and Engineering,
National Science Foundation (NSF)

USA

Dr. Paul Filmer is a Program Director in the Office of International Science and Engineering, where he is responsible for international relations with Latin America, the Caribbean, Egypt, Israel, Iran, and North Korea. He served at the NSF from 1994 to 2012 as a Program Officer in the Geosciences Directorate, managing programs in Earth sciences, climate change, multidisciplinary research, and education. From 2017 to 2018, Filmer was an Executive Secretary for the National Science Board's Committee on Science and Engineering Policy. Before NSF, Dr. Filmer served at NASA Headquarters, working on international science agreements, technology transfer, and on data and intellectual property policy for large distributed data systems. Dr. Filmer serves as the U.S. Government Permanent Alternate Representative and Head of Delegation before the Conference of the Parties of the Inter-American Institute (IAI), an international treaty organization supporting scientific research and education activities throughout the Americas. Dr. Filmer has served as a Delegation Member to the US-Brazil, US-Colombia, US-Mexico, and US-Russia Joint Commission Meetings led by the Department of State, and served as a U.S. Embassy Science Fellow in Ireland. Dr. Filmer has served as a panelist for the review of projects to NASA and NOAA, as well as a reviewer for the national scientific review systems of Argentina, Brazil, Canada, Colombia, and Mexico. Filmer received a B.Sc. degree with honors in Geophysics from Caltech in 1985, a Ph.D. in Marine Geophysics from the Massachusetts Institute of Technology (MIT) in 1992, and an Ex.Ed. in Environmental Economics from Harvard University in 2000.

Participants Profiles – US TEAM



FOUAD H. FOUAD, Ph.D.

Professor, Chair and Director

Professor and Chair of the Department of Civil, Construction, and Environmental Engineering Director of Sustainable Smart Cities Research Center – University of Alabama at Birmingham (UAB)

USA

Dr. Fouad is a fellow of the American Concrete Institute (ACI) and the American Society of Civil Engineers (ASCE). His research interest is in the area of sustainable infrastructure design, maintenance, and rehabilitation with a focus on reinforced concrete, steel structures, as well as sustainable construction materials. He has published numerous technical papers in this field. He secured over \$15M in extramurally funded research studies as principal investigator while at UAB, and contributed to the scientific literature with more than 100 refereed publications. Dr. Fouad currently chairs the ASTM committee on Autoclaved Aerated Concrete, and PCI committee on Prestressed Concrete Poles. His research expertise in green materials and construction methods has a global perspective. Dr. Fouad founded the Sustainable Smart Cities research center at UAB in 2012; since that time the center has been active in different areas of research and education, and its annual symposia has attracted speakers and attendees from all over the world. Dr. Fouad organized three major National Science Foundation (NSF) international workshops on Sustainable Smart Cities and Green Building infrastructure, which were held in March 2009, May 2017, and June 2019 respectively. These led to significant global interactions and collaborations including research, publication, and establishment of joint academic programs.



MONA FOUAD, M.D., Ph.D.

Professor and Director

Division of Preventive Medicine, Minority Health and Health Disparities Research Center at the University of Alabama at Birmingham (UAB)

USA

Mona Fouad, MD, MPH is Professor of Medicine, Director of the Division of Preventive Medicine, and Senior Associate Dean for Diversity and Inclusion in the School of Medicine at the

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University of Alabama at Birmingham, and Founding Director of the UAB Minority Health and Health Disparities Research Center. She is recognized nationally as a leader in health disparities research and served as a member of the National Institutes of Health (NIH) National Advisory Council on Minority Health and Health Disparities from 2008-2012. In 2017, Dr. Fouad was elected a member of the National Academy of Medicine. She obtained her MD from Alexandria University School of Medicine in Alexandria, Egypt, and her MPH from the University of Alabama at Birmingham School of Public Health. Dr. Fouad's career has focused on the health of minority and underserved populations, including efforts to increase involvement of special and underrepresented populations in research. She serves as PI of the NIMHD U54 Obesity Health Disparities Research Center (OHDRC), previously funded since 2003 as an NIMHD P60 Center of Excellence. The OHDRC focuses on the theme of obesity and obesity-related health disparities across the Life Course. Dr. Fouad has contributed to the science of health disparities through major studies to identify variability in cancer care and outcomes based on race, gender, and age. She has developed nationally emulated models in recruitment and retention of minorities in clinical trials and innovative community-based approaches to reducing racial disparities in breast and cervical cancer. She has been the driving force behind interdisciplinary research efforts for understanding problems related to cancer screening and cancer risk factors in the Deep South. Her work in translating science into practice has improved health outcomes in minority and other vulnerable populations. Dr. Fouad has also played a prominent leadership role, both regionally and nationally, in promoting diversity in medical education. Dr. Fouad has led in the efforts to promote minority students, researchers, and leaders through joint programs with Historically Black Colleges and Universities (HBCUs) and other minority-serving academic institutions. She serves as PI of the NIDDK-funded UAB STEP-UP: Promoting Diversity through Mentored Research Experiences, whose goal is to enhance the diversity of the nation's research workforce by providing mentored research training to promising undergraduate students from diverse backgrounds underrepresented in biomedical, clinical and behavioral research.



ARIS GEORGAKAKOS, Ph.D.

Professor and Director

School of Civil and Environmental Engineering at
Georgia Tech – Georgia Water Resources Institute

USA

Dr. Aris P. Georgakakos holds a civil engineering Diploma from the National Technical University of Athens, Greece, and Masters and Ph. D. degrees in water resources from the Massachusetts Institute of Technology. Dr. Georgakakos is a tenured Professor in the School of Civil and

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Environmental Engineering at Georgia Tech and Director of the Georgia Water Resources Institute. Dr. Georgakakos' research interests and publications are in disciplines related to integrated water resources planning and management: Hydrologic simulation and forecasting; remote sensing of hydrologic variables; reservoir system planning and operation; flood and drought disaster forecasting and mitigation; hydro-thermal power systems optimization; crop modeling and agricultural assessments; wetland and other environmental resources protection; control of wastewater treatment plants; climate change assessments; multi-objective optimization; statistics; and hydro-economics. His technology transfer and professional training activities aim to develop and implement prototypical information and decision support systems combining models from the above disciplines with observational data and GIS. Dr. Georgakakos' information and decision support systems are used operationally for river basin planning and management in Georgia and the southeast U.S., California, several East African countries (including those sharing the Nile River), Brazil, Jordan, Greece, and China. These activities have been sponsored by U.S. and foreign organizations, including the U.S. Geological Survey; U.S. Army Corps of Engineers; National Oceanic and Atmospheric Administration; National Science Foundation; U.S. Environmental Protection Agency; Food and Agriculture Organization of the United Nations; World Bank; United Nations Development Program; U.S., European, and Asian International Development Agencies; several African Ministries of water, irrigation, energy, and environment; Chinese Ministries of Education and Water Resources; the Yangtze River Authority; other river basin authorities and nonprofit organizations; electrical and water utilities; NGOs; environmental associations; and citizen groups. Dr. Georgakakos serves in Editorial Boards of premier journals in hydrology and water resources, as well as in state, national, and international committees advising government agencies and international organizations on critical climate adaptation and water resources policy issues. Dr. Georgakakos was the Convening Lead Author for the water resources chapter of the 2014 National Climate Assessment.



REINHARD GOETHERT, Ph.D.

Principal Research Associate

School of Architecture and Planning at
Massachusetts Institute of Technology (MIT)

USA

Goethert teaches and undertakes research on urbanization and housing in developing countries at MIT. He is director of SIGUS (Special Interest Group in Urban Settlement), a program focused on the profession and housing, with extensive experience worldwide and strong links to the

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international development community. He champions the informal housing energy as a key resource in addressing urbanization challenges. His recent research brings in technology for energy self-sufficiency in city development and innovative drone use combined with community participation. He is the founder and secretariat for the Global University Consortium Exploring Incremental Housing, an association of 29 universities. He was selected for the UN-Habitat Scroll of Honour in 1997 for outstanding contributions in the development of innovative methodologies, training, and field practice in Community Action Planning. Numerous publications, with much of the physical planning documented in the book *URBANIZATION PRIMER*, MIT Press (with Horacio Caminos). His extensive community planning has been documented in *ACTION PLANNING FOR CITIES* (available in English, Spanish and Chinese) and *MAKING MICO-PLANS: A Community based process in programming and development*. (English and Spanish, by the World Bank and Intermediate Technology Publications). A book on the informal incremental housing process using an innovative longitudinal survey methodology is available in late 2019, along with a book on community workshop examples addressing a range of challenges: rebuilding after disasters (Banda Aceh), preservation of historical city centers (China), and economic development of small towns (Indonesia).



NANCY GRIMM, Ph.D.

Professor and Senior Sustainability Scientist

Julie Ann Wrigley Global Institute of Sustainability
at Arizona State University (ASU)

USA

Nancy B. Grimm is an ecosystem ecologist and interdisciplinary sustainability scientist who studies interactions of climate change, human activities, resilience, and biogeochemical processes in urban and stream ecosystems. From 1997-2016 Grimm directed the Central Arizona–Phoenix LTER (CAP LTER), a pioneering interdisciplinary study of a complex metropolitan region whose conceptual models of social-ecological-technological systems expanded ecology. She now co-directs the Urban Resilience to Extremes Sustainability Research Network (URExSRN) and works with cities to co-produce visions of resilient and sustainable futures. Grimm is a Past President of the Ecological Society of America (ESA) and the Society for Freshwater Science (SFS), and a Fellow of American Association for the Advancement of Science, ESA, the American Geophysical Union and, this year, SFS. She is an editor for *Earth's Future*, an editorial advisor for *Ecohydrology* and the *Journal of Urban Ecology*, and associate editor for *Sustainability* and *Frontiers in the Built Environment: Urban Science*. She is the

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Virginia M. Ullman Professor of Ecology in the School of Life Sciences and Senior Sustainability Scientist in the Julie Ann Wrigley Global Institute of Sustainability at Arizona State University.



EMILY GRUBERT, Ph.D.

Assistant Professor

Civil and Environmental Engineering at Georgia Tech

USA

Emily Grubert is a civil engineer and environmental sociologist who studies how we can make better decisions about large infrastructure systems. Specifically, she studies how community and societal priorities can be better incorporated into multicriteria policy and project decisions, mainly related to energy, water, and other large scale infrastructure systems. She is particularly interested in ensuring that multiple indicators of impact are considered during socioenvironmental assessment and in changing the decision making-paradigm from relying on a decision maker's value judgments to routinely assessing and incorporating diverse worldviews from affected communities and society at large. Grubert is an Assistant Professor of Civil and Environmental Engineering and, by courtesy, of Public Policy at the Georgia Institute of Technology. She holds a Ph.D. in Environment and Resources from Stanford, an M.S. in Environmental and Water Resources Engineering and an M.A. in Energy and Earth Resources from UT Austin, and a B.S. in Mathematics and Atmosphere/Energy Engineering from Stanford.



FARIBORZ HAGHIGHAT, Ph.D.

Professor

Department of Building, Civil and Environmental Engineering at Concordia University

CANADA

Dr. Fariborz Haghighat is a professor at the Department of Building, Civil and Environmental Engineering – Concordia University, Canada. He has a Concordia Research Chair in Energy and Environment which aims to achieve sustainability in the built environment. His current

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research focuses on the fundamental of heat and mass transport in the built environment, and on its applications in the design and analysis of energy-efficient, healthy/immune, and sustainable buildings/communities. Dr. Haghighat has led two international research collaboration projects which were sponsored the Energy Conservation through Energy Storage Programme of the International Energy Agency, where over a dozen countries participated. Professor Haghighat is a Fellow of the ASHRAE and an elected member of the International Academy of Indoor Air Science. He is the Editor of the International Journal of Sustainable Cities and Society, and a member of the Editorial Board of several international scientific journals. He has published more than 300 journal and conference papers and presented numerous talks on selected aspects of Energy and Environment.



GEMMA HURST, Ph.D.

Senior Lecturer

Health Psychologist at Staffordshire University

UK

Dr. Hurst is a Senior Lecturer in Health Psychology at Staffordshire University (UK) where she serves the Director of the MSc Health Psychology. Her research interests focus on measuring the impact of environment exposures on health and wellbeing and exploring the wider determinants of health in relation to health inequality. She is also experienced in evaluating health promotion programs and behavior change interventions. She is a Registered Health Psychologist with the Health Care Professions Council and a Chartered Psychologist with the British Psychological Society.



MARYAM KARIMI, Ph.D.

Assistant Professor

Department of Environmental Health and Sciences
at the School of Public Health – University of
Alabama at Birmingham (UAB)

USA

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Dr. Maryam Karimi is an Assistant Professor at the Department of Environmental Health Sciences in the UAB School of Public Health. She was a recent NIH funded Post-Doctoral research fellow at Columbia University, in the Department of Environmental Health Sciences, Mailman School of Public Health. Dr. Karimi has diverse set of experiences in environmental science, public health, policy, urban planning and resiliency which places her in a unique position for independent research projects aimed towards sustainable cities and human health focusing on developing strategies to counteract climate change at a local and national scale. She has expertise in developing high spatial resolution urban air temperature maps to characterize the effect of surface characteristics and weather conditions. Her research is focused on identifying environmental risk and social vulnerability associated with the impact of climate change and temperature variations caused by urban development and air pollution. Her research work has been funded by NIH, NASA and NOAA.



JUDY KURTH, Ph.D.

Health Manager

Public Health England

UK

A public health improvement specialist with over 25 years' experience of working in public sector organizations at a senior management level, and a track record of developing and delivering a range of innovative programs to reduce health inequalities and improve health equity. She has led the commissioning and delivery of interventions around healthy and safer communities in an urban city in the UK, and recently established a joint health inequalities translation research unit between local government and academia in Staffordshire. Currently working as a public health manager with the national health inequalities team for Public Health England her work centers around developing and supporting place-based approaches to reducing health inequalities. Her main areas of interest center on the wider determinants of health, including healthy urban planning, inclusive growth and the economic determinants of health, and assets-based approaches to community health and wellbeing.

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ROUZBEH NAZARI, Ph.D.

Associate Professor

Department of Civil, Construction and
Environmental Engineering – University of Alabama
at Birmingham (UAB)

USA

Dr. Rouzbeh Nazari is an Associate Professor in the Department of Civil, Construction & Environmental Engineering at University of Alabama at Birmingham. His primary research interests are water resources management, urban coastal resiliency, hydrodynamic modeling, storm water management and impact assessment of extreme weather events on built environment. He has worked on New York and New Jersey Resiliency planning has been a pioneer in identification of the damage and resiliency assessment of extreme climatic scenarios. He has received over \$3,000,000 in funding from federal, state and industry for his research. Dr. Nazari's research has been supported by NSF, USDA, FEMA, NJDCA, NJDEP, NY/NJ DOT, and American Water. Dr. Nazari's work has been featured on TV and major Newspapers including, PIX11 news, NJTV, US Guardian, Philadelphia Inquirer, New Jersey Business and Press of Atlantic City to name a few. Dr. Nazari has published several book chapters, journal papers and has presented his work in national and international conferences.



PAULA ALVAREZ PINO, MSCE.

Associate Director

Sustainable Smart Cities Research Center at the
University of Alabama at Birmingham (UAB)

USA

Paula Alvarez Pino is the Associate Director of the Sustainable Smart Cities Research Center at University of Alabama Birmingham (UAB). Paula coordinates and communicates work effort and development within the center. She obtains, evaluates and processes materials related to different research projects, as well as, assists in publication of papers and grant proposals. Paula constantly collaborates with the City of Birmingham as liaison in several projects related to the field of sustainability. Paula has also helped organize and develop outreach programs

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that educate the youth about the principles of sustainability. She holds an M.S. in Civil, Construction and Environmental Engineering from the University of Alabama at Birmingham (UAB), and a B.S in Civil, Construction and Environmental Engineering from UAB. She has performed research on development of innovative spun prestressed concrete poles and has a research interest in utility distribution poles and the development of an innovative smart pole for smart cities. She is a credentialed practitioner on Envision Sustainable Infrastructure rating system (ENV SP).



TINA REUTER, Ph.D.

Director and Associate Professor

Institute for Human Rights – University of Alabama
at Birmingham (UAB)

USA

Dr. Tina Kempin Reuter is the Director of the Institute for Human Rights and Associate Professor in the Department of Political Science and Public Administration and the Department of Anthropology, specializing in human rights, peace studies, and international politics at the University of Alabama at Birmingham (UAB). Her research focuses on the empowerment of marginalized communities through human rights implementation and human rights education, especially as it pertains to the inclusion and rights of persons with disabilities, ethnic and religious minorities, refugees and migrants, women, children, the LGBTQ community, and people dealing with the consequences of poverty. She studies how universal, international norms laid down in the Universal Declaration of Human Rights and international human rights treaties translate to the regional, local, and grassroots levels as a way to empower people, affect their well-being and health, and inspire policy change. She explores how technology can be used to promote human rights and improve access, inclusion, and participation of marginalized communities in society. Before joining UAB, Dr. Reuter was the Director of the Reiff Center for Human Rights and Conflict Resolution and Associate Professor of international and comparative politics at Christopher Newport University. She was formerly associated with the Solomon Asch Center for the Study of Ethnopolitical Conflict, University of Pennsylvania, the Institute of Public International Law at the University of Zurich, and the Center for Security Studies at the Swiss Federal Institute of Technology. Dr. Kempin Reuter holds a PhD in International Relations and International Law and an MA in Contemporary History, Economics, and International Law from the University of Zurich, Switzerland. She is the author of numerous publications in her field and has been awarded multiple prizes and grants to expand her research and teaching.

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DAVID SAILOR, Ph.D.

Professor

School of Geographical Sciences and Urban
Planning – Arizona State University (ASU)

USA

David Sailor joined Arizona State University (ASU) in 2016 as Professor in the School of Geographical Sciences and Urban Planning. He also serves as Director of the Urban Climate Research Center (<https://urbanclimate.asu.edu>)—a center that leverages the diverse expertise of more than 35 faculty affiliates across 7 schools at ASU to develop and implement large-scale highly-interdisciplinary projects addressing crucial atmospheric environment challenges for cities. Prior to joining ASU, Sailor was on the faculties of Tulane University (1993-2003) and Portland State University (2003-2015). He served as the Director of the South Central Regional Center of the National Institute for Global Environmental Change (NIGEC) at Tulane and was the founding Director of the Green Building Research Laboratory at Portland State. He received his doctorate from the University of California at Berkeley in 1993, where he conducted research in collaboration with the Energy and Environment Division at Lawrence Berkeley National Laboratory.

Professor Sailor's scholarly agenda focuses on the intersection of climate with the built environment. This includes investigation of feedback mechanisms between the built environment and climate with a focus on building energy consumption and renewable energy resources as well as both indoor and outdoor thermal comfort and air quality. He has worked extensively on quantifying the causes and prospects for mitigating the urban heat island effect, including investigation of innovative materials and technologies integrated into building designs and urban infrastructure. His current research projects are exploring potential for mitigating indoor and outdoor thermal environments and air quality with an emphasis on vulnerable elderly populations.

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ANDREW SULLIVAN, MSCE

Associate Professor

School of Engineering – University of Alabama at
Birmingham (UAB)

USA

Andrew Sullivan has worked in the transportation engineering field for 30 years, both in academia and in the private sector. He specializes in traffic control systems, geometric design of roadways, transportation simulation, and congestion monitoring. He developed the Traffic Signal Design Manual for the Alabama DOT, which is used as their standard for traffic control systems design, and is working with the University of Alabama to develop a similar manual related to traffic simulation practices. He currently heads the Birmingham Regional Transportation Data Center, a joint partnership with the Regional Planning Commission of Greater Birmingham, which monitors congestion and the performance of the Birmingham regional transportation system. He is a registered professional engineer and provides consulting services to industry.

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