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ARAB-GERMAN  
YOUNG ACADEMY  
OF SCIENCES AND  
HUMANITIES

Interdisciplinary Workshop

# Thermal Comfort Perceptions, Microclimatic Diversity and Climate Change

Workshop of the Arab-German Young Academy  
of Sciences and Humanities (AGYA)

23 – 24 March 2022

American University of Ras Al-Khaimah  
Ras Al-Khaimah, United Arab Emirates



[agya.info](http://agya.info)



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## AGYA project partners:

**Prof. Dr. Ahmad Sakhrieh, AGYA alumnus**  
*AURAK, United Arab Emirates*

**Dr. Jan Friesen, AGYA alumnus**  
*Helmholtz Centre for Environmental Research - UFZ,  
Germany*



**AURAK**  
الجامعة الأمريكية في رأس الخيمة  
AMERICAN UNIVERSITY OF RAS AL KHAIMAH

## Tuesday, 22 March

Venue: Marjan Island Resort and Spa – Al Liwan Restaurant

19:00                    **Get-Together Dinner**

## Wednesday, 23 March

Venue: American University of Ras Al Khaimah (AURAK) – Saqr Library Auditorium

08:00                    **Meeting in the Lobby & Transfer to AURAK**

09:00 – 09:30        **Opening & Welcome Address**

**Ahmad Sakhrieh**

*AGYA alumnus, Organizing Committee Chair, AURAK, UAE*

**Jan Friesen**

*AGYA alumnus, Helmholtz Centre for Environmental Research - UFZ, Germany*

**Mahmoud Abdel-Hafiez**

*AGYA Co-President, Goethe University Frankfurt, Germany & Uppsala University, Sweden*

09:30 – 10:00        **Networking Coffee**

10:00 – 12:30        **Human Centered Approaches for Well-being and Sustainability**

**Chair: Mahmoud Abdel-Hafiez**

*AGYA Co-President, Goethe University Frankfurt, Germany & Uppsala University, Sweden*

**Personal Cooling Vests to Improve Thermal Comfort  
of Active Humans in Hot Outdoor Climates**

**Nesreen Ghaddar**

*American University of Beirut, Lebanon*

**Designed for Outdoor Comfort: The Singaporean Pavilion  
and Other Interventions at the Dubai EXPO 2020**

**Wolfgang Kessling**

*Transsolar Energietechnik, Germany*

**Urban Heat Diversity and Personal Exposure**

**Uwe Schlink**

*Helmholtz Centre for Environmental Research, UFZ, Germany*

**Neighborhood Environment & Walkability Cities**

**Mohammed Alkatan**

*AGYA member, Public Authority for Applied Education and Training, Kuwait*

12:30 – 14:00        **Lunch Break**

14:00 – 15:20        **Outdoor Thermal Comfort: Integrated Perspectives**

**Chair: Khaled Hossein**

*AURAK, UAE*

**Psychological and Emotional Effects of Climate Change  
(digital presentation)**

**Luise Fischer**

*AGYA member, University of Leipzig, Germany*

**Urban Spaces in Climate Change: Co-Creation of Climate-Adaptive and  
Inclusive Spaces for Cities in Transformation**

**Mais Jafari**

*Technical University Dortmund, Germany*

15:20 – 15:40        **Networking Coffee**

15:40 – 17:00

### **Outdoor Thermal Comfort: Green Strategies**

**Chair: Mohammad Alnahhal**

*AURAK, UAE*

### **Thermal Comfort and Architectural Design**

**Liudmila Cazacova**

*AURAK, UAE*

### **Desert Agroforestry Using Plants Native to Extreme Ecosystems: Environmental and Ecological Considerations**

**Henda Mahmoudi**

*AGYA alumna, International Center for Biosaline Agriculture (ICBA), UAE*

**Ahmed Debez**

*AGYA alumnus, Centre de Biotechnologie de Borj Cedria (CBBC), Tunisia*

19:00

**Dinner**, Marjan Island Resort and Spa – Al Liwan Resturant

## **Thursday, 24 March**

**Venue: American University of Ras Al Khaimah (AURAK) – Saqr Library Auditorium**

08:00

**Meeting in the Lobby & Transfer to AURAK**

09:00 – 10:40

### **Water-Energy Sensitive Design Solutions**

**Chair: Muataz Al Hazza**

*AURAK, UAE*

### **Smart and Sustainable Cities in the MENA Countries: Combining Sustainable Growth and Climate Adaption?**

**Jan Friesen**

*AGYA alumnus, Helmholtz Centre for Environmental Research, UFZ, Germany*

### **Diurnal Radiative Cooling Impact in Mitigating Urban Heat Island Effect**

**Kamel Ghali**

*American University of Beirut, Lebanon*

### **Outdoor Thermal Comfort: A Case Study from The University of Jordan**

**Jamil Al Asfar**

*University of Jordan, Jordan*

10:40 – 11:10

**Networking Coffee**

11:10 – 12:30

### **Renewable Energy Systems for Outdoor Thermal Comfort**

**Chair: Kadhim Alamara**

*AURAK, UAE*

### **Utilizing of Renewable Energy Systems for Outdoor Thermal Comfort: Opportunities and Challenges**

**Ahmed Al-Salaymeh**

*National University College of Technology, Jordan*

**Kholoud Hassouneh**

*University of Jordan, Jordan*

12:30 – 13:30

**Lunch Break**

13:30 – 14:00

**Closing Session**

14:00 – 17:00

**Visit to Outdoor Thermal Comfort Projects in Ras Al Khaimah**

20:00 – 22:00

**Dinner**, Marjan Island Resort and Soa – Al Liwan Resturant