

Sustainable Human Buildings: Translation between research and practice

*Theme: Occupants'
behaviour on energy use
in higher education
buildings both in the UK
and Egypt*

Event Link: https://teams.microsoft.com/l/meetup-join/19%3ameeting_M2ZkNmYzYWUtYjIwMy00ODAwLWIoYTItM2NiZDYyMjkwNDVk%40tthead.v2/o?



Registration Link: https://docs.google.com/forms/d/e/1FAIpQLSfGXkzfedGnFbaD4comXMa5IYDSnxo6VUJbw6qFWoHlEj4hJw/viewform?usp=sf_link



WEBINAR - Awakening call for environment and climate change

WELCOME

Dear Event Attendees,

Welcome to the very first webinar of ‘Sustainable Human Buildings’

“Sustainable Development Goals: Translation between research and practice” is the title and topic of the Event. “Awakening call for environment and climate change” implies the concept of understanding the notion of ‘Sustainable Design of the Built Environment’ and how it implies with the today’s society, related to time and the physical space.

Thanks to the contribution of professionals, educators and researchers we wanted to prompt reflection on the future fields of investigation in Sustainability and its impacts on the society in line with considering climate change, as well as to discover and to connect the our built environment and the experts who share common interests in research and practice. When the foundation of this event was built, we started to develop two important manifestos: what is the notion of ‘Sustainability’? And what is the main research agenda of other scholars in their research project to combat with climate change? We invited the top-notch academics to reflect on the different natures of ‘Sustainability’: Engineering, Design, Society, Design, Technology, Thinking, Industry...

During this online event, you will be engaged in an interdisciplinary debate and you have an opportunity to establish networking with the academics across the globe as well as the international leading academics on Sustainable Design, who will introduce a wide range of approach of their on-going research, practice and education experiences.

We hope you will enjoy the event and of course, enjoy the atmosphere of this great networking opportunity with academics across the globe.

*Dr. Bertug Ozarisoy, Dr. Mubarak Elnour
Chair and Co-Chair of the Event*



Awakening call for environment and climate change 1

WEBINAR - Awakening call for environment and climate change

PROGRAMME

15:00 INTRODUCTION (Egypt Time Zone)

WELCOME SPEECH 1 - Chair - Dr. Bertug Ozarisoy, London South Bank University, London, UK

WELCOME SPEECH 2 - Co-chair - Dr. Mubarak Elnour, London South Bank University, London, UK

15:15 SPEAKER 1 - Prof. Issa Chaer, London South Bank University, London, UK

15:30 SPEAKER 2 - Dr. James Bishop, London South Bank University, London, UK

15:45 Q&A - Lessons learnt from the UK practice and research
Chair - Dr. Bertug Ozarisoy

16:00 SPEAKER 4 - Prof. Hesham Safwat, British University in Egypt, Cairo, Egypt

16:15 SPEAKER 5 - Mr. Karim Farah, Managing Partner, Reeds Consult, LEED Fellow in Egypt

16:30 - Lessons learnt from Egyptian practice and research
Chair - Dr. Mubarak Elnour

16:45 CLOSING REMARKS

FAREWELL SPEECH - Prof. Issa Chaer & Prof. Hesham Safwat

17:00 NETWORKING



Speaker 1: Biography

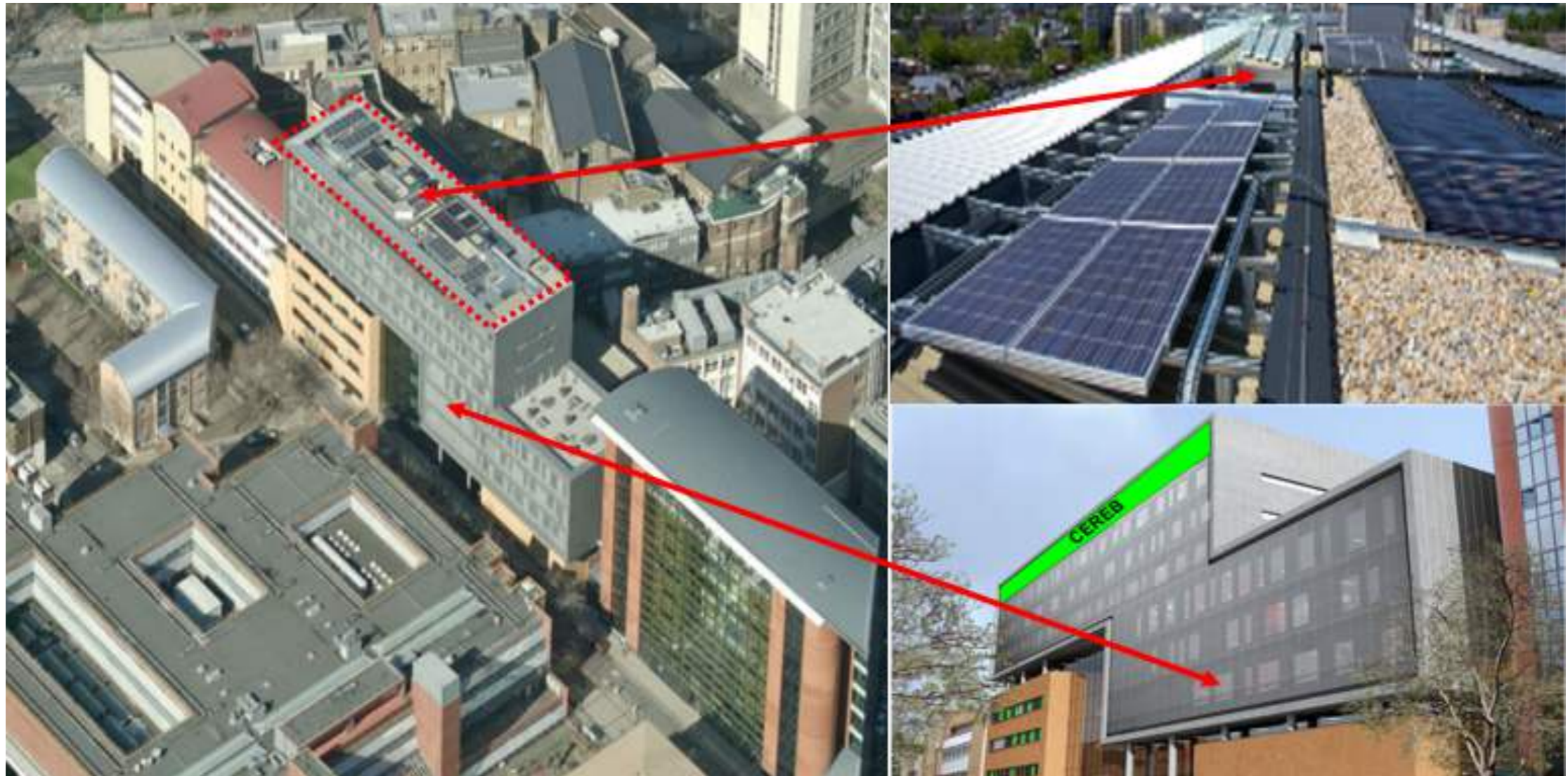
Prof. Issa Chaer

Prof. Issa Chaer, Associate Dean Research & Enterprise, School of the Built Environment and Architecture, London South Bank University, London, United Kingdom

Issa Chaer is a Chartered Engineer with a BEng (Hons) degree in Mechanical Engineering, a PhD in enhanced heat transfer and over 25 years combined academic, research and industrial experience. Prof Issa is a great believer of research informed teaching and has published over 100 research articles, 4 books/book-chapters and developed over 10 academic and CPD courses. He is currently a Professor and Director of Research and Enterprise for the School of the Built Environment and Architecture. His research interests include heat transfer, thermal energy systems/networks, alternative and renewable technologies and energy management. His research portfolio span more than 25 years with evidence of significant contribution to the advancement of engineering knowledge at national and international levels including over 120 peer reviewed research articles plus the creation of novel research topics and technological development.



Energy Conservation: A Pathway to Net Zero



Occupants' behaviour and energy efficiency of higher education buildings, CEREB, LSBU Campus

Synopsis - Chaer will share research efforts aimed at integrating design processes into the collaborative making of immersive, communicative, and social experiences in the built environment. The transition to net zero is a complex and challenging process that requires significant changes in the way we consume energy. This talk is designed to discuss the intricacies of the Net Zero concept and how diverse energy systems in workplace settings contribute to the overarching carbon footprint. Additionally, the session will explore practical energy-saving tips and available resources, equipping participants with the knowledge needed to make informed choices regarding energy saving and energy-efficient solutions.

Speaker 2: Biography

Dr. James Bishop

Senior Lecturer in Built Environment,
School of the Built Environment and
Architecture, London South Bank
University, London, United Kingdom

James Bishop, Bishop is a Chartered Building Engineer, Fellow of the Chartered Association of Building Engineers (FCABE), and a Senior Fellow of the Higher Education Academy (SFHEA). He is a Senior Lecturer in Built Environment and course leader for the construction management and commercial management (with quantity surveying) degree programmes at London South Bank University. He has teaching and research interests across a range of subjects including construction technology, emerging technologies and sustainability. James' work has a particular focus on environmental sustainability and decarbonisation of the built environment.



Understanding occupancy and behaviour to influence heating system design and specification



*Indoor air quality assessment of a representative higher education building, Keyworth Centre, LSBU Campus.
Image copyright: <https://www.oliverheinemann.de/projects/lsbu/444.html>*

Synopsis - *This presentation will give a short overview of a current research project looking at occupancy-based heating analysis and efficiency, and some context around earlier projects looking at the impact of occupant behaviour around energy consumption, particularly across communities of young people.*

Currently, Dr Bishop is working with LoRaWAN-based technology providers to monitor the internal environment of a case study building, based on the London South Bank University campus.

This type of IoT-based hardware has the potential to extend Building Management Systems (BMS) to the occupied spaces of a building to a degree that has not been previously feasible, due to the high installed cost of wired controls and poor knowledge of space utilisation, which limits BMS control strategies.

This project uses the installation of LoRaWAN wireless sensors to facilitate a data-driven approach to assessing and identifying the optimum demand reduction and heat decarbonisation pathway for a building. The aim is to inform retrofit decision-support/optimisation, for creating an investable net zero action plan for the (case study) building, informed by the data generated.

Currently, accessing quality data to accurately characterise the performance of existing buildings can be highly challenging, and inhibits the modelling of improvement options. Retrofit is handled case-by-case, losing any economies of scale across portfolios. The approach utilised on this project uses novel sensor technology to create better datasets charactering building assets and performance.

Speaker 3: Biography

Prof. Hesham Safwat

Senior Lecturer in British
University in Egypt

Prof. Hesham Safwat has charted a distinguished career over the last two and a half decades, deeply immersed in the intricacies of Mechanical Power Engineering with a focused lens on HVAC systems, energy efficiency, and the sustainable design of building infrastructures. Educated at Cairo University, where he obtained both his Ph.D. and Master's in Mechanical Power Engineering, Dr. Safwat has built a robust foundation in both the theoretical and practical aspects of the discipline, underscored by his significant academic role as a Senior Lecturer at the British University in Egypt since 2014. In his professional journey, Dr. Safwat has seamlessly blended academic rigor with industry relevance, marked by his tenure as a Technical Manager at Miraco – Carrier, Egypt, where he led initiatives to advance HVAC system designs and energy efficiency measures from 1996 to 2014.

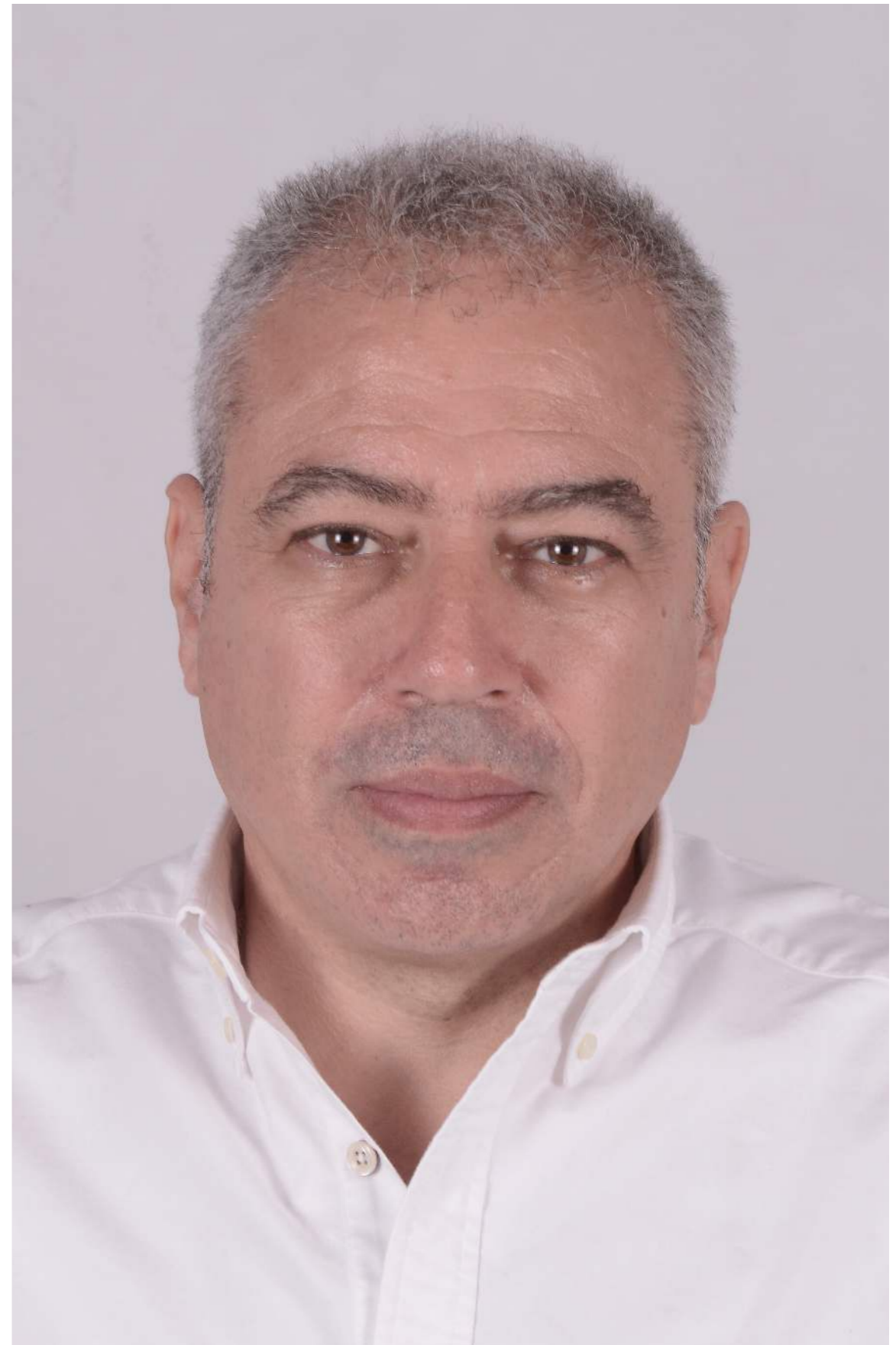


Speaker 4: Biography

Mr. Karim Farah

Managing Partner - Reeds Consult,
LEED Fellow - Edge Auditor

Mr. Karim Farah is a Senior Architect / Sustainability Consultant / LEED and Edge Expert with an overall experience of 30 years in the design and execution of various types of Building projects including Airport terminals, Academic campus, Hospitals, Healthcare Centers, Research Facilities, Library, Conference Center, School, Sports Facilities, Stadiums, Housing, Office Headquarters, Railway stations, Mosque, Private Residences, Residential Buildings, Tourist Resorts, Industrial Plants and others. LEED Manager for more than 60 LEED projects seeking all levels of Certifications in Cairo, Dammam, Riyadh, Jeddah, Dubai, Abu Dhabi, Bahrain and Casablanca. 24 achieved LEED certifications.





Team members

Prof. Issa Chaer, London South Bank University, UK

Dr. Bertug Ozarisoy, London South Bank University, UK

Dr. Mubarak Elnour, London South Bank University, UK

Dr. James Bishop, London South Bank University, UK

Dr. Zhihui Ye, London South Bank University, UK

Prof. Hesham Safwat, British University in Egypt, Egypt

Prof. Iman Elmahallawi, British University in Egypt, Egypt

Dr. Ahmad El Shamy, British University in Egypt, Egypt

Eng. Engy Elshazly, British University in Egypt, Egypt

Mr. Mahmoud Alghrieb, British University in Egypt, Egypt

Dr. Rana Rushdy, British University in Egypt, Egypt