



Empowering a Greener Future:

**The First Engineering Endowed Chairs |
Symposium on Building Sustainable
Solutions Towards Net Zero Emissions**

December 5, 2023 | 9:00 a.m.–3:00 p.m. | Hall A, Main Building Rotunda, AUS

About the Symposium

Held under the umbrella of the CEN Endowed Chairs, the symposium will address various topics centered around sustainability, and will discuss ways in which university engagement and corporate dedication are tackling climate change and in the drive to the UAE's goal of net zero emissions by 2050.

This symposium will raise awareness among participants about the urgent need to address climate change and achieve net zero emissions from such industries. Esteemed speakers from both academia and industry will present sustainable solutions and their implementation to help achieve the net zero emission goal. Participants will engage in discussions and interactive sessions to identify the challenges and barriers that hinder the transition to net zero emissions.

Objectives

The symposium aims to provide participants with the latest information and research on sustainable technologies, policies and practices that can help achieve energy efficiency and net zero emissions. The topics of the symposium will cover innovation and best practices on sustainable concrete structures, renewable energy and much more. Additionally, the symposium will serve as a platform for sharing research projects, case studies, best practices and success stories from various industries including oil and gas, renewable energy and construction. Through fostering collaboration and networking among participants, the symposium encourages the exchange of ideas, experiences and expertise, facilitating partnerships and joint initiatives to accelerate the development and implementation of sustainable solutions towards net zero emissions.



Program

9:00 a.m.–9:30 a.m.	Breakfast, Networking and Registration	
9:30 a.m.–9:45 a.m.	Opening and Welcoming Remarks	Dr. Tod Laursen, AUS Chancellor Dr. Fadi Aloul, Dean of the College of Engineering at AUS Endowed Chair Donors
9:45 a.m.–10:00 a.m.	Research Highlights by CEN Endowed Chairs	Dr. Amani Al-Othman, Petrofac Chair in Renewable Energy Dr. Mehdi Ghommem, Dana Gas Chair in Engineering Dr. Rami Hawileh, Riad T. Al-Sadek Chair in Civil Engineering
10:00 a.m.–10:15 a.m.	Keynote Presentation 1 "The Impact of Using fiber-reinforced polymer on Concrete Durability & Sustainability"	Dr. Antonio Nanni, President of the American Concrete Institute
10:15 a.m.–10:30 a.m.	Keynote Presentation 2 "An Overview of NEU: An ACI Center of Excellence for Carbon Neutral Concrete and its Validation Program"	Dr. Dean Frank, President of the NEU Center of Excellence for Carbon Neutral Concrete
10:30 a.m.–10:45 a.m.	Keynote Presentation 3	Nedal Zadari, Chief Commercial Officer of Fine Hygienic Holding
10:45 a.m.–11:45 a.m.	Coffee Break, Networking Poster Competition and Booth Exhibition	
11:45 a.m.–12:15 p.m.	Panel Discussion 1 "The Road to COP28: Five Conversations with AUS Alumni in Sustainability on Climate Change and Education for Social Transformation"	Panelists: Tala Alnounou, Rana Jamshed, El-Cheikh Fadi Kaiss and Amjad Azmeer Moderator: Maisa Jarjous
12:15 a.m.–12:30 a.m.	Keynote Presentation 4 "How to Create Smart and Sustainable Communities?"	Oliver Kraft, Executive Vice President at Siemens
12:30 a.m.–12:45 p.m.	Keynote Presentation 5 "Seeding Sustainability: Cultivating Education for Sustainable Development in Higher Education"	Dr. Maria Toro-Troconis, Founder and Director of the Association for Learning Design and Education for Sustainable Development
12:45 p.m.–1:15 p.m.	Panel discussion 2 "Net-zero CO2 Emissions Goal: University Engagement and Corporate Commitment"	Panelists: Dr. Ghanim Kashwani, Rawad Barazani, Hira Hafeez-Ur-Rehman and Jawwad Sheikh Moderator: Dr. Norita Ahmad, Director, AUS Center for Innovation in Teaching and Learning
1:15 p.m.–1:30 p.m.	Closing Ceremony and Recognition Announcement of the Top Three Winners	
1:30 p.m.–3:00 p.m.	Lunch Break, Networking and Booth Exhibition	

What to Expect

The symposium will include:

- research highlights by CEN Endowed Chairs
- panel discussions and presentations by keynote speakers
- poster competition showcasing AUS student research, projects and initiatives related to sustainability
- booth exhibition for industrial partners to showcase their technologies, services and expertise networking opportunities

Who Should Attend?

By bringing together participants from diverse backgrounds, the symposium will foster collaboration, knowledge sharing and holistic discussions on building sustainable solutions towards net zero emissions. Here are some key groups that could benefit from attending:

Academics and Researchers: Scholars, scientists, undergraduate and graduate students, and researchers specializing in climate change, energy, concrete structures, construction materials, sustainable development and related fields. Their expertise can provide valuable insights, data and research findings to inform discussions and solution development.

Government Representatives: Officials and policymakers from local, regional, municipalities and related construction authorities, and national governments who are involved in formulating climate change and sustainability policies, energy and construction design regulations, and sustainable development plans.

Industry Leaders: Executives, managers and representatives from industries with significant carbon emissions, such as energy, manufacturing, transportation, construction and agriculture. This includes professionals involved in sustainable technology, renewable energy, and clean construction and transportation sectors.

Technology Providers: Professionals from companies and organizations involved in developing and implementing sustainable technologies, renewable energy solutions, energy-efficient systems and carbon capture technologies.

Educational Institutions: Representatives from universities, colleges and research institutions that offer programs and courses related to sustainability, climate change and renewable energy. They can contribute knowledge and experiences in educating and training future professionals in the field.

Registration

AUS faculty, staff and students are welcome to participate.

Attendance for external participants is by invitation only. (Invitees will receive a link to register.)

Panel Discussions

Aligned with COP28, the panel discussions will create dynamic and engaging discussions on the commitment of corporates and universities to achieve net-zero CO2 emissions by 2050 and involve different stakeholders.

Here are the topics that will be covered:

- The Road to COP28: Five Conversations with AUS Alumni in Sustainability on Climate Change and Education for Social Transformation
- Net-zero CO2 Emissions Goal: University Engagement and Corporate Commitment Towards a Sustainable Future

Panelists are selected based on their expertise and diverse perspectives related to the proposed topic.

Poster Competition

The poster competition will be an excellent opportunity for AUS students to visually showcase their research projects or initiatives related to the following main tracks:

- Energy, Water and Sustainable Environment
- Sustainable Construction and Concrete Innovations and Design
- Smart Cities

Projects will be selected based on their relevance to themes of the symposium, innovation and creativity, impact and significance, practicality and feasibility. Participants will receive a certificate of participation and the top three posters will receive cash prizes.

Students who wish to enter the poster competition must submit a poster abstract (200 words maximum) through this link. The deadline for submissions is November 15.

Booth Exhibition

Booth exhibition spaces will be provided to the industrial partners to showcase interactive displays, prototypes or visual materials related to their technologies and services. Participants are encouraged to bring any relevant materials, samples or demonstrations to engage and educate the visitors.

About the CEN Endowed Chairs



Dr. Amani Al-Othman, Petrofac Chair in Renewable Energy

Dr. Al-Othman joined AUS in 2013 and is currently the Petrofac Endowed Chair in Renewable Energy. Dr. Al-Othman has a PhD in Chemical and Biological Engineering from the University of Ottawa, a master's degree from McGill University and a Bachelor degree from

Jordan University of Science and Technology. Her research focuses on fuel cells and renewable energy applications. She is a lead investigator in the energy group at AUS. The group develops novel fuel cell membranes, supercapacitors, and self-cleaning solar Cells. Dr. Al-Othman is also affiliated with the neuro-engineering group. Dr. Al-Othman is the recipient of the 2019 College of Engineering (CEN) Excellence in Teaching Award and the 2022 Excellence in Research Award. She is the author of more than 100 articles, book chapters and conference papers. Additionally, she was named among the top 2 percent of global scientists for 2021, in a study led by Stanford University and published by Elsevier, and has been an AUS top-cited researcher. She served as a trustee at the Prestigious Sharjah Future Readiness Award, launched by Sharjah Police 2022-2023.



Dr. Mehdi Ghommem, Dana Gas Chair in Engineering

Dr. Ghommem is Associate Professor of Mechanical Engineering at AUS. He was appointed as the Dana Gas Endowed Chair in September 2023. He earned his PhD in Engineering Mechanics from Virginia Tech, USA in December 2011. He joined AUS after gaining good

experience in industry. Before joining AUS, he worked as a research scientist with Schlumberger for three years, where he was involved in conducting and supporting research projects along with recommending scientific approaches, novel concepts and technical solutions to monitor and control well stimulation operations. His main research areas include nonlinear dynamics, design and analysis of MEMS, and bio-robotics. To date, he has published approximately 90 journal papers and holds a granted patent and three patent applications. He was the recipient of the CEN Excellence in Research and CEN Outstanding International Collaboration awards, and the Schlumberger Henri Doll Prize for innovation among other awards and scholarships.



Dr. Rami Hawileh, Riad T. Al-Sadek Chair in Civil Engineering

Dr. Hawileh is Professor of Civil Engineering and Coordinator of Executive Education at the AUS College of Engineering. Since joining AUS in 2007, Dr. Hawileh has built a strong and active research focus that has resulted in around 120 journal papers published

in well-reputed international journals and around 70 papers in conference proceedings. His research interests are primarily focused on strengthening of reinforced concrete structures, computational modeling, fire resistance, and analysis and design of sustainable concrete structures. Dr. Hawileh received the College of Engineering "Research Excellence Award" for 2013-14 and was awarded a scholarship by the Arab Fund Fellowships Program in 2015. According to a study published and led by researchers at Stanford University, Dr. Hawileh is ranked among the top 2 percent of scientists worldwide in their field since 2020 based on their career-long citation impact.

Keynote Speakers



Dr. Antonio Nanni, President of the American Concrete Institute

Dr. Antonio Nanni, FACI, is Professor and Chair of the Department of Civil and Architectural Engineering at the University of Miami, Coral Gables, FL, USA. He has been an active member of many ACI

committees, including 318, Structural Concrete Building Code; 440, Fiber-Reinforced Polymer Reinforcement; 549, Thin Reinforced Cementitious Products and Ferrocement; the International Advisory Committee; and the Committee on Codes and Standards Advocacy and Outreach. Nanni also serves as a Trustee for the ACI Foundation. His past service to ACI includes membership on the Board of Direction, Technical Activities Committee, Educational Activities Committee, and Financial Advisory Committee. He has been recognized by ACI for his many contributions with the 2021 Arthur J. Boase Award, 2018 Joe W. Kelly Award, 2006 Chapter Activities Award, and 1999 Delmar L. Bloem Distinguished Service Award.



Oliver Kraft, Executive Vice President at Siemens

Oliver Kraft serves as the Executive Vice President for Sustainable Communities, Siemens Smart Infrastructure, located in Dubai, UAE. His mission is to manage a comprehensive approach for sales and

execution in the areas of digitalization and sustainability for large enterprises, cities, districts, campuses, and other smart and sustainable communities.

Before that, Kraft led Siemens' efforts to create an IoT based technology blueprint for future smart cities at Expo 2020, Dubai. Kraft held various global management positions for Siemens in Germany and the USA, among them the role of Senior Vice President of Operational Excellence, with focus on manufacturing, product lifecycle management and innovation, and COO of Concentrated Solar Power, Energy Solutions.



Dr. Dean Frank, President of the NEU Center of Excellence for Carbon Neutral Concrete

Dr. Dean Frank currently serves as the Executive Director of NEU: An ACI Center of Excellence for Carbon Neutral Concrete. He previously served as Principal/Consultant

for Dean Frank Associates, LLC, Director of Quality and Sustainability Programs at the Precast/Prestressed Concrete Institute (PCI), and Director of Technical Services at the National Precast Concrete Association (NPCA). He has been an active member of related industry committees, including ACI, ASTM International, PCI, and the International Federation for Structural Concrete (FIB) for over 20-years. He obtained his MS degree in structural engineering from the University of Colorado at Boulder and is a registered Professional Engineer in Colorado and Indiana.



Dr. Maria Toro-Troconis, Founder and Director of the Association for Learning Design and Education for Sustainable Development

Dr. Toro-Troconis is Founder and Director of the Association for Learning Design and Education for Sustainable Development

and an EdTech Consultant and strategist working for different organizations of The United Nations: UNICEF Office of Innovation, UNICEF Europe and Central Asia, UNICEF Malawi, UNICEF Uzbekistan, UNESCO IESALC, UNDP Iraq and UNDP Azerbaijan. She was selected as one of the top international education influencers of 2021 (Edruptors) by ISC Research because of the impact she has in Education for Sustainable Development. She is the Founder and Director of the Association for Learning Design and Education for Sustainable Development (ESD) and the author of the CoDesignS ESD Learning Design Framework, which has been implemented in several universities globally: <https://aldesd.org/>. She has more than 20 years' experience working with several institutions across the UK, including 10 years as Senior Lecturer and Head of E-learning at the School of Medicine—Imperial College London.



Nedal Zadari, Chief Commercial Officer of Fine Hygienic Holding

Nedal Al Zadari holds the position of Chief Commercial Officer at Fine Hygienic Holding. He is responsible for the commercial teams across Fine markets as well as Fine Solutions, Global Developing Markets, and

the Export operations at FHH. His most notable achievement at Fine is developing the Away from Home Business to be the leading company in the region, increasing Fine Solutions' revenue 22 times over 10 years. Al Zadari is dedicated to environmental sustainability, which is evident from his position on the Board of GreenTech and his past experience as General Manager of Energy Management Services. Al Zadari holds a bachelor's degree in mechanical engineering and an MBA with a focus on finance.

Panelists



Dr. Ghanim Kashwani

Professor of Civil Engineering Practice A Fellow Chartered Civil Engineer (CEng FICE) by the Institution of Civil Engineers (ICE)-UK, with an MBA in Sustainability Leadership and a PhD in Civil Engineering.



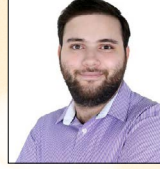
Jawwad Sheikh

The Ecology Representative at American University of Sharjah and Co-Lead for the 18th edition of the Conference of Youth, AUS Alumni



Hira Hafeez-Ur-Rehman

Innovation Manager, Youth at UNICEF Office of Innovation, Stockholm, Sweden



El-Cheikh Fadi Kaiss

Engineer at EFS Facilities Services Group



Rawad Barazani

Senior Process & Process Safety Team Leader at Sharjah National Oil Corporation (SNOC)



Rana Jamshed

Finance/data scientist and PhD student at the University of South Carolina, USA



Amjad Azmeer

PhD student at King Abdullah University of Science and Technology, Saudi Arabia

AUS alumnus recognized in GreenBiz 30 under 30 for leading corporate sustainability efforts



Tala Alnounou

Head of Marketing - MENA
LWK & Partners



Dr. Norita Ahmad

Professor of Marketing and Information Systems and Director of AUS Center for Innovation in Teaching and Learning



Maisa Jarjous

Award-winning architect and urbanist with an impressive academic background

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