



EFFICIENT BUILDING DESIGN

MATERIAL & HVAC EQUIPMENT TECHNOLOGIES

Opening Ceremony

8:45–9:30 am | Jassim Al-Qatami Engineering Lecture Hall

Keynote and Paper Sessions - Thursday October 3 2024

Time	Paper/ Talk #	Title	Presenting Author	Room Number
Keynote Talk 1 Chair: Dr. Fadl Moukalled				
10:00–11:00 am		Moisture, Materials, and HVAC Systems – Some Insight into Hygrothermal Interactions at Different Scales	Monika Woloszyn	Jassim Al-Qatami Engineering Lecture Hall
Session 1 - Sustainable Ventilation and Climates Chair: Dr. Joseph Zeaiter Co-Chair: Dr. Samir Traboulsi				
11:15–11:40 am	1131	Improving Thermal Comfort in Hot Climates via Conditioned Canopies: A Computational Fluid Approach	Hilda Hatoum	Jassim Al-Qatami Engineering Lecture Hall
11:40 am–12:05 pm	1118	Enhancing Building Envelope Efficiency through CAHEP-PCM Integration: Mathematical Modeling and Theoretical Analysis	Khadija Ramadan	
12:05 pm–12:30 pm	1126	Investigating the Effectiveness of Personalized Ventilation in Mitigating the Airborne Transmission of Contaminants in Meeting Rooms	Jennifer Karam	
12:30pm–12:55pm	1104	The Induction Unit Vs. The Fan Coil Unit. Comparison of Chilled Water HVAC Systems for Typical Comfort Room from Different Aspects: Indoor Comfort and Embodied Carbon	Maciej Danielak	
Keynote Talk 2 Chair: Dr. Mohammad Ahmad				
2:30–3:30 pm		Design's Role in the Climate Change Adaptation – A 10-Point Decarbonization Strategy	Emanuele Naboni	Jassim Al-Qatami Engineering Lecture Hall
Session 2 - Passive Building Design Chair: Dr. Shadi Najjar Co-Chair: Dr. Alissar Yehya				
3:45–4:10 pm	1100	Passive Heat Reduction Techniques in Prefabricated Buildings	Ammar Alkhalidi	Jassim Al-Qatami Engineering Lecture Hall
4:10–4:35 pm	1106	NZEB and Passive Design Application Under Beirut Weather Conditions : A Case Study Using ECOTECH Software	Fadl Bdeir	
4:35–5:00 pm	1112	Addressing Embodied Carbon in MEP Building Design: A Sustainable Approach	Ibrahim Kronfol	
5:00–5:25 pm	1116	Methodology Towards Low-Energy Building Design in Bchamoun Area- Lebanon Case Study	Abdallah El Ghaly	
5:25–5:50 pm	1119	Reducing Energy Consumption through Laminated Glazing Based HVAC System Design for an Academic Building in the UAE	Houssemeddine Gouta	
Session 3 - Building Energy Management Chair: Dr. Dany Abou Jaoude Co-Chair: Dr. Joseph Bakarji				
3:45–4:10 pm	1105	Methodology Towards Near 100% Solar Fraction Heating System: Lebanon Case Study	Mohamed Hmadi	M207
4:10–4:35 pm	1115	Optimizing the Productivity and Energy Consumption in Office Workspaces with Mixed-mode Ventilation	Hussein Krayem	
4:35–5:00 pm	1120	Calibration of Building Energy Simulation Using Multi-step Method	Mahdi Ibrahim	
5:00–5:25 pm	1124	Systematic Commissioning and Performance Testing of Next Generation Building Management Systems	Muhyiddine Jradi; Na Liu	
5:25–5:50 pm	1128	CFD Investigation of the Optimal Air Distribution System Using Still Air Technology for a High Wall Type Air Conditioner with Micro-holes	Yasser Aboserea	

Keynote and Paper Sessions - Friday October 4 2024

Time	Paper/ Talk #	Title	Presenting Author	Room Number
Keynote Talk 3 Chair: Dr. Nesreen Ghaddar				
9:00–10:00 am		The Effects of Exhaust Air Vent Location of Thermal Comfort Inside a Residential Building Equipped with an Evaporative Cooling System	Samir Moujaes	Jassim Al-Qatami Engineering Lecture Hall
COP28 AND THE GLOBAL “COOLING” PLEDGE Chair: Dr. Nesreen Ghaddar				
10:15–10:25 am		Journey to Decarbonization: An Ultra-Efficient Hybrid Cooling System for a Climate-Resilient Future	Yousef Alhorr	Jassim Al-Qatami Engineering Lecture Hall
10:25–10:35 am		Analysing Global Climate Regulations and Their Impact on the HVAC Industry	Nabil Shahin	
10:35–10:45 am		Driving Sustainable Practices - A Pivotal Role in Decarbonization	Rima Sorour	
10:45–10:55 am		Decarbonization of Energy Demand Across Buildings and Infrastructure	Balsam Nehme	
10:55–11:05 am		Global Green Financing Programmes on Cooling and Opportunities for Lebanon	Abdul-Majid Haddad	
11:05–11:50 am		Q & A		
Keynote Talk 4 Chair: Dr. Walid Chakroun				
12:15–1:15 pm		Pathways and Solutions towards Net-Zero Whole Life Carbon Buildings by 2050	Shady Attia	Jassim Al-Qatami Engineering Lecture Hall
Session 4 -Indoor Air Quality and Thermal Comfort Chair: Dr. Mahmoud Al-Hindi Co-Chair: Dr. Soha Talih				
2:30–2:55 pm	1130	Assessment Of Covid-19 Lockdown Restrictions On The Particulate Matter Concentrations In Bengaluru	Jahnavi Ravikumar	Jassim Al-Qatami Engineering Lecture Hall
2:55–3:20 pm	1109	Assessment of Air-cooling Garments and Ventilated Vests as Personal Thermal Management Solutions for the Elderly	Jaafar Younes	
3:20–3:45 pm	1108	Performance of a Novel Personalized Ventilation Unit at Different Relaxed Indoor Air Conditions of Temperature and Humidity	Omar Allahham	
4:10–4:35 pm	1127	A Yearly Study of the Relationship Between Wall Type and Classroom Indoor Comfort in a Mediterranean City	Michel Zakharia	
Industrial Session Chair: Mr. Hassan Sultan Co-Chair: Mr. Zaki Zaatari				
4:45–5:00 pm		Transforming Construction: NESMA's Journey Towards Sustainable and Energy-Efficient Building Practices	Nesma	Jassim Al-Qatami Engineering Lecture Hall
5:00–5:15 pm		Energy Conservation of Ventilation Systems	FTC Qatar	
5:15–5:30 pm		Sustainable Cooling Solutions for Residential Applications in the MENA Region	Daikin	
5:30–5:45 pm		Unveiling the Unverified: the Truth Behind VRF Efficiency Claims: Separating Fact from Fiction	AHRI	
5:45–6:00 pm		Efficient HVAC Design for Horse Stables in Hot Climates	MEDS	
6:00–6:15 pm		Pre-Insulated PP-R system for Sustainable Cooling and Heating Solutions	Interplast	
6:15–6:30 pm		Variable Speed Environmentally Friendly Room Air Conditioning - Field Study in Egypt	Daikin	