



Under the patronage of

Dr. Saud Al-Harbi

Minister of Education and Higher Education

1st International Conference

on Applications of Air Quality in Science and Engineering

ICAAQSE 2020

Scientific Program

February 10-12, 2020

Kuwait



**Day 1:
Monday**

February 10, 2020

08:00 - 09:00	Registration Desk Open at the Conference Venue	
09:00 - 09:30	Welcome and Opening of the Conference	
09:30 – 09:50	Global Roadmap for Addressing Health Impacts of Air Pollution: Status in the Eastern Mediterranean Region, <i>Mazen Malkawi</i> , WHO	
9:50 – 10:30	Exhibition Inauguration	
10:30 – 11:30	Keynote Speaker: Professor <i>Roy Harrison</i> , University of Birmingham, UK	
	Urban Air Quality: Current Threats and Opportunities	
Session 1	Session 1A	Session 1B
	Chair: Prof. Magdy Abdel Wahab	Chair: Prof. Ian Colback
11:40– 12:00	Source Apportionment of Particulate Matter Using PMF Receptor Model and HYSPLIT Model in an Industrialized Rural Area in South Africa, <i>Cheledi Tshhehla, George Djolov</i>	Indoor and Outdoor Characteristics of Particulate Matter over Al-Jubail and Ras Tanura Industrial Cities, Kingdom of Saudi Arabia: Space-Borne and Ground-Based Approach, <i>Ashraf Farahat</i>
12:00 - 12:20	Real-Time Air Dispersion and Accidental Release Modeling: Its Advantages, Challenges, and Applications, <i>Brian et al.</i>	Measurements of Air Pollutants by Use of LIDAR, In-Situ Measurements and Satellite Data over Tehran, Iran, <i>Hossein A.</i>
12:20 - 12:40	CFD Modelling of Air Pollution within an Inner City Built Environment, <i>Martinm et al.</i>	Ambient Air Quality of Çanakkale, Turkey, Burak Selcuk, Sibel Mentese
12:40 - 01:00	Application of CALINE4 Model for Analysis of Air Pollution at a School Parking Lot, <i>Eitidal Al-Bassam</i>	Monitoring Air Quality in Tajikistan , <i>Sabour et al.</i>
01:00 – 02:00	Prayer/Lunch Break	
Session 2	Session 2A	Session 2B
	Chair: Dr. Ashraf Ramadan and Prof. Mohamed F. Yassin	Chair: Dr. Sibel Mentese
02:00 – 02:20	Predicting Benzene Concentration Levels from Statistical Data of other Air Pollutants by Multiple Regression Analysis, <i>Negah et al.</i>	Air Quality and Its Impact on Indoor and Outdoor Archaeological Sites Luxor Museum (Egypt) and Amman Castle (Jordan) as Case Studies, <i>Mohamed A. El-Gohary</i>

02:20 – 02:40	Efficient Air Quality Policy Testing with a Rapid Urban Dispersion Model (RapidAIR), <i>Scott et al.</i>	Indoor/Outdoor Air Quality in an Official Building in Kuwait City, <i>Khan et al.</i>
02:40 – 03:00	Characterization and Dispersion Modelling of Iron Particles, <i>Mahad et al.</i>	Generation of Fine Particulate Matter and Its Source Strength During Domestic Activities, <i>Ian et al.</i>
03:00 – 03:20	Recent and Future Advances in U.S. EPA's AERMOD Modeling System, <i>Tiffany et al.</i>	A Ten-Years Look at Air Quality of Istanbul, Seda Özgür Ogurtani, <i>Sibel Mentese</i>
03:20 – 03:40	Numerical Modelling of Zinc Runoff from Organically Coated Galvanised Architectural Steel, <i>Khalil Khan, James Sullivan</i>	A Pilot Study of Gaseous Pollutant's Measurement (No ₂ , So ₂ , Nh ₃ , Hno ₃ and O ₃) in Abidjan, Cote D'ivoire Contribution to an Overview of Gaseous Pollution in African Cities, <i>Julien et al.</i>
03:40 – 04:00	Tee/Coffee Break and Poster Session	
Session 3	Session 3A	Session 3B
	Chair: Prof. Ahmed Taheri	Chair: Dr. Muferrh Al-Rashidi
04:00 – 04:20	Analysis of a Dense Haze Event over North-Eastern Pakistan Using WRF-Chem Model and Remote Sensing, <i>Muhammad Zeeshaan Shahid</i>	Temporal Variations of Organic Air Pollutant Compositions on Busy Roads of Canakkale, Turkey, <i>Sibel Mentese, Bahar Akca</i>
04:20 – 04:40	Mapping Air Quality and Environmental Drivers over Cairo and Rural Areas Using Numerical Modelling and Remote Sensing Techniques, <i>Islam et al.</i>	A Comparative Study on the Traffic-Related Differences on the Indoor and Outdoor Levels of Volatile Organic Compounds in Office Buildings at Urban Areas in Kuwait, <i>Al-Khulaifi et al.</i>
04:40 – 05:00	How Land Use Change Can Improve Air Quality Status over Kuwait City, <i>Zeinab et al.</i>	Assessment of Air Pollutants Emissions Due to Traffic in Two Residential Areas in Kuwait, <i>Hamoda et al.</i>
05:00 – 05:20	Examining Factor Influenced and Variable Interaction of Particulate Matter (PM ₁₀) Concentrations in a Moving Vehicles: Case Study in Peninsular Malaysia, <i>Noor et al.</i>	Organic and Inorganic Trace Pollutants around Municipal Solid Waste Incinerators: Results from Air Quality Monitoring Campaigns in Northern Italy, <i>Giovanni et al.</i>
05:20 – 05:40	Estimating Emissions from the Power Generation and Water Desalination Sector in the State of Kuwait, <i>Ramadan A.</i>	Clean Air from an Environmental Rights Perspective, <i>Alaa Hassan</i>
05:40	End of the Sessions	

**Day 2:
Tuesday**

February 11, 2020

08:00 – 08:30	Registration Desk Open at the Conference Venue	
08:30 - 09:30	Keynote Speaker: Professor <i>Lee Heekawn</i> , Incheon National University, Korea	
	Urban Air Pollution and Management	
09:30 - 10:30	Keynote Speaker: Professor <i>Ana Isabel Miranda</i> , Universidade de Aveiro, Portugal	
	Air Quality and Climate Resilient Cities: A Modelling Approach	
10:30 - 10:50	Tee/Coffee Break and Poster Session	
Session 4	Session 4A	Session 4B
	Chair: Prof. Islam Abou El-Magd	Chair: Dr. Abdulla Sattar Shady
10:50 - 11:10	Spatial and Seasonal Variations of the Particulate Matter: Case study: Riyadh City, Saudi Arabia, <i>Adel Mohamed Ghoneim, Abdullah Modaihsh</i>	Estimation of Secondary Aerosols Formation Through Photochemical Reactions, Case Study: Tehran, <i>Amir et al.</i>
11:10 - 11:30	Some Peculiarities of Air Pollution in Urban Locations and the Ways of Its Prevention, <i>Abduali Toirov</i>	Indoor CO ₂ Concentration Levels in Several Schools in Kuwait, <i>Al-Awadi et al.</i>
11:30 - 11:50	Spatiotemporal Variation of Brick Kilns and Its Relation to Ground-Level PM _{2.5} through MODIS Image at Dhaka District, Bangladesh, <i>Abdullah Al Nayeem</i>	Wet Deposition as an Applied Approach for Studying Aerosols: Case Study for Lake Urmia Basin/NW Iran, <i>Hesam et al.</i>
11:50 - 12:10	Exposure Assessment of Ambient Particulate Matter on Roads of Lahore, Pakistan, <i>Zulfiqar et al.</i>	Analysis of Aerosol Particles Between the Years 2003 and 2018 in the Middle East with a Focus on Kuwait, <i>Cihan et al.</i>
12:10 - 12:30	PAHs and Elemental Compositions of Particulate Matter Retained on Air Condition Unit's Filters, <i>Mahfouz et al.</i>	Effect of Atmospheric Aerosol on Ozone Concentration over Zanjan, Iran, <i>Gharibzadeh et al.</i>
12:30 - 1:40	Prayer/Lunch Break	
Session 5	Session 5A	Session 5B
	Chair: Dr. Ali Al-Hamoud	Chair: Dr. Martin Jaeger
01:40 - 02:00	Particulate Matter Pollution Studies in the UAE, <i>Hamdan et al.</i>	Possible Survival of Bioaerosols in the Atmosphere: Pollutants as Contributing Factors, <i>Noda et al.</i>

02:00 – 02:20	Particulate Matter Influence Areas in Oil Fields Unpaved Roads, <i>Villa et al.</i>	Evaluation of Seasonal and Spatial Variation for Microbial Contents in Falling Dust in Riyadh City Falling, <i>Samir Radwan</i>
02:20 – 02:40	Atmospheric Concentrations and Possible Sources of Black Carbon and Other Light Absorbing Aerosols in the Arabian Gulf Region, <i>Alfoldy et al.</i>	Microbial Pollution of Indoor Air in Riyadh City Government Schools, <i>Reda Abdel-Aziz Khaled, Al-Amary</i>
02:40 – 03:00	Particulate Matter Concentration in a Vehicle Cabin Driven in the City of Kuwait, <i>Shalash et al.</i>	Plasmonic Dipole Antenna for Graphene Reconfigurable Gas Sensing and Environment Monitoring, <i>Malhat et al.</i>
03:00 – 03:20	Spatiotemporal Variations of Six Criteria Air Pollutants and Influencing Factors in the State of Kuwait for the Biennium 2016-2017, <i>Mariam J. Malek, A. Al-Dabbous</i>	Polluted Air by Pollen Grains and Fungal Spores as Causes of Allergy, <i>Wafaa K. Taia, Eman Bassioni</i>
03:20 – 03:40	Tee/Coffee Break and Poster Session	
Session 6	Session 6A	Session 6B
	Chair: Dr. Abdul Rahman Khan and Layla Al-Awadi	Chair: Prof. Turki Habeebullah
03:40 – 04:00	Trend and Seasonal Variation in Atmospheric Pollution and Air Quality in Malaysia Revealed Through Seventeen Years Metadata Analysis, <i>Akbar John et al.</i>	Vegetation to Improve Urban Air Quality, <i>Mohamed Esmat Hamed ElAttar</i>
04:00 – 04:20	Effectiveness of Vehicle Free Zone in Reducing Air Pollution, <i>Jasmita Khadgi et al.</i>	Determination of Radioactivity Levels and Associated Risks Factors Due to Diverse Medium around a Phosphate Fertilizer Plant, <i>Bajoga et al.</i>
04:20 – 04:40	The Correlation Between Black Carbon Aerosol and CO, and Tropospheric Ozone in Tehran, <i>Miraj, et al.</i>	Assessment of Traffic Noise Pollution in the State of Kuwait, <i>Mariam Al-Delmani, Ashraf Ramadan</i>
04:40 – 05:00	Climate Change and Its Impact on Desertification in Iraq, <i>Qusay Fadel Abdul</i>	Air Pollution Caused by Stone and Marble Industry in Palestine and Its Impacts on Health, <i>Hilmi S.S.</i>
05:00	End of Sessions	
05:30 - 07:30	Visit the Mubarakiya Market (there will be a bus service)	
07:30	Banquet Dinner	

Day 3:

Wednesday February 12, 2020

8:30 - 9:30	Keynote Speaker: Professor <i>Petros Koutrakis</i> , Harvard T.H. Chan School of Public Health, USA	
	Air quality and Health in Kuwait: Lessons and Future Direction	
Session 7	Session 7A	Session 7B
	Chair: Prof. Mustafa Selim	Chair: Prof. Ibrahim Hassan
9:40 - 10:00	Effect of the Atmospheric Particulate Matter on Respiratory Disease During Hajj Season, <i>Turki M. A. Habeebullah, Omar B. Ahmed</i>	Aerosol Optical Depth over the Arabian Peninsula: Validation of ECHAM5-HAM Against Ground-Based and Satellite Data , <i>Al Zawadl et al.</i>
10:00 - 10:40	Climate Change and Health in Kuwait: Hot Temperatures and Mortality, <i>Barrak Alahmad, Petros Koutrakis</i>	Native Vegetation Change Influence on Microclimate, Air quality and Economy, <i>Al-Dousari et al.</i>
10:40 - 11:00	Risk of Low Birth Weight and Very Low Birth Weight from Exposure to Particulate Matter (PM _{2.5}) Speciation Metals During Pregnancy, <i>Janvier et al.</i>	Model-Based System for Analysing Wind Erosion Risk in Turkey, <i>Kenan Ince, Kucumen et al.</i>
11:00 - 11:20	Tee/Coffee Break and Poster Session	
Session 8	Session 8A	Session 8B
	Chair: Prof. Janvier Gasana	Chair: Dr. Ali Al-Dousari
11:20 - 11:40	Bibliometric Analysis of Health Impacts of Air Pollution in Eastern Mediterranean Countries, <i>Heba Safi</i>	The Conceptual Framework of the Air in the Qur'an for Application to Science and Engineering, <i>Nurdeng Deuraseh</i>
11:40 - 12:00	Air Pollution Assessment in Fuel Stations and Its Impact on Workers' Health: A Case Study from Saudi Arabia, <i>Hassan et al.</i>	Aerosol Optical Thickness of Particulate Matter over Eastern Part of Saudi Arabia and Bahrain from 2008 to 2019: Speciation, Variability, and Distributions, <i>Jasim et al.</i>
12:00 - 12:20	High-PM ₁₀ Concentrations and Respiratory Diseases in Canakkale, Turkey, <i>Baltaci et al.</i>	Dust Storm Forecasting in Qatar and the Greater Arabian Peninsula, <i>Fountoukis, et al.</i>
12:20 - 12:40	Urban Aerosols Exposure and Regional Inhaled Deposited Dose Assessment in Eastern Mediterranean Conditions, <i>Hussein et al.</i>	Combined Application of Numerical Modelling and Satellite Observation in the Study of a Multi-Aspect Storm over West Asia, <i>Nikfal et al.</i>

12:40 - 1:00	Significance of Aerosolized Particle Size Distribution and Composition on the Level of Exposure to Hazardous Chemicals, <i>Mustafa I. Selim</i>	Synoptic Comparison Analysis of Two Spring Massive Sand/Dust Storms in Iraq, Saadiyah <i>H. Halos, Salah Mahdi</i>
01:00 - 02:00	Prayer / Lunch Break	
Session 9	Session 9A	Session 9B
	Chair: Prof. Tareq Hassan	Chair: Dr. Christos Fountoukis
2:00 - 2:20	Brick Kiln Workers Air Pollution Exposure Assessment: A Case Study From Nepal, <i>Parth S.M. et al.</i>	Determining the Role of Maharloo Lake in Air Pollution Using Dust Collector LVS1-Micro PNS (Iran), <i>Kazemi et al.</i>
2:20 – 2:40	Ambient PM _{2.5} Aluminum and Elemental Carbon and Placental Abrupton Morbidity, <i>Janvier Gasana et al.</i>	High Efficiency Performance of Quartz Fibers for Filtering Soot Aerosols, <i>Amini et al.</i>
2:40 – 3:00	Spatiotemporal Variations and Health Impact of PM _{2.5} , PM ₁₀ , O ₃ and NO ₂ Exposures in Kuwait, <i>Ali Al-Hemoud</i>	More Than a Decade of Observations of Dust Properties near Source and Transport Regions in the Vicinity of Kuwait City Using Nasa's Calipso Satellite Measurements, <i>Omer et al.</i>
3:00 – 3:20	Respiratory and Cardiovascular Effects of Ambient Particulate Matter from Dust Storm and Non-Dust Storms Periods in Kuwait, <i>Al-Khulaifi1 et al.</i>	Contrasting Wind Regimes (Shamal vs Monsoon) for Dust Transport over South Iran, <i>Alireza Rashki, Dimitris Kaskaoutis</i>
3:20 – 3:40	Chromosomal Damage and Respiratory Health Status Among Urban Workers Exposed to Traffic-Related Air Pollution (Trap) in Klang Valley Area, <i>Awang et al.</i>	EMME-CARE: The New Center of Excellence on Climate & Atmosphere Research in the Eastern Mediterranean-Middle East, <i>Jean Sciare et al.</i>
3:40 – 4:00	Health Risks Associated with PM _{2.5} Concentration in Abidjan Hospital, Côte d'Ivoire, <i>Kouadio et al.</i>	Study of the Air Pollution in Brick Factories in Al-Nahrawan City and their Effects on the Workers, <i>Maitham A. Sultan, Jalal N. Hussian</i>
4:00 – 4:20	Ecological and Human Health Risk from Trace Metals in Roadside Soil and Road Dust of Major Industrial Locations of Delhi, India, <i>Zainab et al.</i>	Dust Storms in Southern Iraq and their Environmental Impacts, <i>Sarhan Al-Khafaji</i>
4:20	End of the Conference	

Poster Presentation

ID	Title
P-1	Solar Towers for a Better Air Quality in Urban Areas: Analysis of Performances, <i>Fabio Murena</i>
P-2	Characterization of PM _{2.5} in Relation to Meteorological Characteristics in Dhaka City, Bangladesh, <i>Ahmad Kamruzzaman Majumder</i>
P-3	A Novel Approach to Improve the Air Quality of Hospitals in the Arabian Penninsula , <i>Kamel Hooman, Farhad Sabri</i>
P-4	A comparative Study of the Levels of Pollution and Human Risk Assessment in Cairo Using Satellite Information, <i>Ibrahim H., Abdel Wahab M.</i>
P-5	Evaluation of the Cold Start Phenomena and Its Effect on Air Quality Based on Monitored Data in Tehran, <i>Akbar et al.</i>
P-6	The Effect of Different Courtyard Ratios in University Buildings on the CO ₂ Concentration in Upper Egypt During the Hot Period: New Sohag University as a Case Study, <i>Amr et al.</i>
P-7	Health Risk Assessment in Schoolchildren Exposed to Dust Heavy Metals in Jeddah City, Saudi Arabia, <i>Alghamdi et al.</i>
P-8	Analysis of Air Pollutants at Extreme Pressure Values in İstanbul, Turkey, <i>Emrah Tuncay Özdemir</i>
P-9	High Time Resolution Measurement of TC, BC, EC, OC and OM in PM ₁ and PM _{2.5} , <i>Rigler et al.</i>
P-10	Development of Spatiotemporal Black Carbon Emissions Inventory of Pakistan, <i>Imran Shahid</i>
P-11	Emissions Management and Ambient Air Quality Monitoring in Upstream Oil and Gas Sectors - Highlights of KOC's Air Compliance Management Program (ACMP) as an International Best Practice, <i>Zainab Hussain et al.</i>
P-12	Long-Term Measurements of Toluene and NO ₂ at Some Locations in Kuwait , <i>Maryam Shehab, Amjad Moinuddin</i>

