

## Mohamed F. Yassin

### Research Scientist

Air Quality Program, Environment & Life Sciences Center  
Kuwait Institute for Scientific Research (KISR)

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### Education

- Ph.D. Environmental Engineering, University of Tokyo, Japan, March 2004  
Thesis title: “*Study on Pollutant Dispersion within Urban Area under Changes of Atmospheric Stability and Wind Direction*”
- M. Sc. Engineering, Assiut University, Egypt, June 1995
- B. Sc. Engineering , Assiut University, Egypt, June 1987

### Positions Held

- Sept. 2014- Present: Research Scientist, Air Quality Program, Environment & Life Sciences Center, Kuwait Institute for Scientific Research (KISR), Kuwait
- Sept. 2007 – August 2014: Secondment to the Department of Environmental Technology Management, College of Life Sciences, Kuwait University, Kuwait from Assiut University, Egypt
- June 2009 - August 2014: Associate Professor at the Faculty of Engineering, Assiut University, Egypt – on secondment to Kuwait University, Kuwait
- Nov. 2006- April 2007: Visiting Researcher, Naces Center for Mathematical Modeling, Faculty of Nuclear Science of the Czech Technical University, Prague, Czech
- Nov. 2004 - Nov. 2006: Visiting Researcher at Wind Engineering Research Center (Environmental Group), Tokyo Polytechnic University, Japan
- May 2004 - Nov. 2004: Special Consultant to the Minister of Environmental Affairs, Egypt
- April 2004 – May 2009: Assistant Professor at the Faculty of Engineering, Assiut University, Egypt
- April 2003 - March 2004: Assistant Researcher at the University of Tokyo, Japan
- April 2000 - March 2004: Ph.D. student at the University of Tokyo, Japan
- April 1999 – March 2000: Research student at the University of Tokyo, Japan
- Sept.1995 - March 1999: Assistant Lecturer at the Faculty of Engineering, Assiut University, Egypt
- Oct. 1987 - Aug. 1995: Demonstrator at Faculty of Eng., Assiut University, Egypt

## **Expertise and Research Interests**

- Outdoor Air Quality Modeling and Assessment
- Indoor Air Quality
- Numerical Simulation (CFD model)
- Atmospheric Diffusion
- Air Pollution Meteorology
- Modeling of micro-scale flow problems
- Physical Simulation (Wind tunnel modeling)
- Noise Pollution
- Environmental Statistics
- Wind Engineering

## **Funded projects**

1. “Prediction of wind characteristic over local topography for suitable site of wind power station, Japan”, Funded by: Japan Society for Promotion of Science (JSPS), PI: Shinsuke Kato, Co-PI: Mohamed F. Yassin (April, 2000 – March, 2003)
2. “Prediction on Pollutant Diffusion with Fluctuations of Wind Direction over Built up Area”, Funded by: Egyptian Government, PI: Mohamed F. Yassin, Ph.D. thesis, (April, 1999 – March, 2004)
3. “Study on High Prediction Model of Building Surface Concentration Taking Account of Thermal Stability, and Establishment of a Guideline for Preventing Air Pollution in the Vicinity of Buildings”, Funded by: Japan Society for Promotion of Science (JSPS), PI: Mohamed F. Yassin (November, 2004- November,2006)
4. “Prediction of Pollutant Dispersion Emitted from Motor-Vehicle Traffic in Mong-Kok Area, Hong Kong”, Funded by: Japan Society for Promotion of Science (JSPS), PI: Masaaki Ohba, Co-PI: Mohamed F. Yassin (October, 2005-September, 2006)
5. “Impacts of Urban Intersection on Atmospheric Dispersion of Traffic Exhaust Emissions, R. of Czech” Funded by: Naces Center for Mathematical Modeling, Faculty of Nuclear Science of the Czech Technical University, Prague, Czech, PI: Radka Kellnerova, Co-PI: Zbynek Janour, Mohamed F. Yassin (November , 2006-May , 2007)
6. “Air Dispersion Study at Shameyah HARAM-MAKKAHA Extension, KSA” Funded by: Institute for Hajj and Umrah Research, Umm Al Qura University , Makkah-Saudi Arabia, PI: Hesham Jeelani, Co-PI: Mohamed F. Yassin (July, 2008-June, 2009)
7. National Unit for Environmental Research and Services , Funded by: Kuwait University, CO-PI: Mohamed F. Yassin (January r, 2014-December, 2016)

8. "Effect of Atmospheric Thermal Stability and Stack Locations on air intake contamination", Funded by: Kuwait University, PI: Mohamed F. Yassin (December, 2012-June, 2014)
9. "Impact of pollutant dispersion emitted from traffic highway in air quality in Kuwait" Funded by: Kuwait University, PI: Mohamed F. Yassin (October, 2012- March, 2014)
10. "Impact of Structural Geometry and Wind Direction on Vehicle Emissions in Urban Street Canyons" Funded by: Kuwait University, PI: Mohamed F. Yassin (May, 2011 – April, 2012)
11. "Impact of Flow Obstacles on pollutant dispersion emitted from Different Elevated Point Source" Funded by: Kuwait University, PI: Mohamed F. Yassin (April. 2009 – April, 2010)
12. "Impact of Roof Building Configurations on Air Quality in an Urban Street Canyon" Funded by: Kuwait University, PI: Mohamed F. Yassin (December , 2008 – November, 2010)

### **Thesis Supervision**

1. "Evaluating the impacts of SO<sub>2</sub> emissions from power stations in Kuwait", M.Sc., Supervisor, Mosaab Al-Awadhi, Kuwait university, Program Environmental Science, June, 2009.
2. "Statistical Analysis of Visibility and Accident Rates in Kuwait", M.Sc., Supervisor, Yacoub Qasem, Kuwait university, Program Environmental Science, June, 2009.
3. "Evaluation of pollutant Emission from Flaring at Petroleum Refineries in Kuwait", M.Sc., Supervisor, Hesham Alkandari, Kuwait university, Program Environmental Science, June, 2009.
4. "Surface Ozone Assimilations in Kuwait International Airport", M.Sc., Supervisor, Osama Almethen, Kuwait university, Program Environmental Science, June, 2010.
5. "The Impacts of Power Plant Emissions on Public Health, M.Sc., Supervisor, Ala Akbar, Kuwait university, Program Environmental Science, June, 2012.
6. "Modeling Indoor Air Quality of Particulate matter PM<sub>2.5</sub> due to Smoking with the use of CFD Model", M.Sc., Co-Supervisor, Alaa Alsarraf, Kuwait university, Program Environmental Science, June, 2013.
7. "Evaluation of dust storm sources in Kuwait", M.Sc., Supervisor, Sara Almutairi, Kuwait university, Program Environmental Science, June, 2013.
8. . "GIS-Based study on ozone sources, distribution and impacts in Kuwait", M.Sc., Supervisor, Amina Al-Jazzaf, Kuwait university, Program Environmental Science, June, 2014.

9. "Study of indoor noise levels in kindergarten, elementary and secondary schools in Kuwait", M.Sc., Supervisor, Hayi Almutari, Kuwait university, Program Environmental Science, June, 2014.
10. "Assessment of VOCs in Car Parking In Kuwait", M.Sc., Supervisor, Bashayer Alshammari, Kuwait university, Program Environmental Science, June, 2014.
11. "Characterization of Ambient Air Background Concentration In Kuwait", M.Sc., Supervisor, Marrium Jassem, Kuwait university, Program Environmental Science, June, 2014.
12. "Assessment of Air Quality Trends and Pollution Sources in the Southern Region Of Kuwait Using Open-air", M.Sc., Supervisor, Anwar Mahmoud, Kuwait university, Program Environmental Science, (Ongoing) .
13. "Assessment of The Exposure To Volatile Organic Compounds (VOCs) In Service Stations In Kuwait", M.Sc., Supervisor, Omer Gabandi, Kuwait university, Program Environmental Science, (Ongoing).
14. "Effect of the Planetary Boundary Layer on the Dispersion of Pollutants in Kuwait "Lulwa Al-Shatti, Kuwait university, Program Environmental Science, (Ongoing) .

## **Publications**

### ***Full Books***

1. **Yassin M.F.** (2010) "Study on Pollutant Dispersion within Urban Area" VDM Publishing House Ltd, ISBN 978-3-639-27279-6 (Extracted from Ph. D. thesis)

### ***Publications in peer-reviewed scientific journals***

1. Al-sarraf A.A., **Yassin M.F.**, Bouhamra W. (2015) Experimental and computational study of Particulate Matter of Secondhand Smoke in Indoor Environment, International Journal of Environmental Science and Technology, 12, (1), 73-86 DOI: 10.1007/s13762-013-0414-x
2. **Yassin M.F.**, Al Hajeri, N., Kassem M. A. (2014), Polycyclic aromatic hydrocarbons collected from indoor built environments on heating, ventilation and air conditioning dust filters, Indoor and Built Environmental, DOI: 10.1177/1420326X14541557
3. **Yassin M.F.**, Kassem M. A. (2014) Effect of Building Orientations on Gaseous Dispersion in Street Canyon: a Numerical Study, Environmental Modeling & Assessment, 19(4), 335-344.
4. **Yassin M.F.**, AL-Harbi M., Kassem M. (2014) Computational Fluid Dynamics Simulations on the effect of Rough Surface on Atmospheric Turbulence Flow Above Hilly Terrain Shapes, Environmental Forensics, 15:159–174

5. **Yassin M. F.**, almathen o., kassem M. (2014) Assessment of Surface Ozone Over Residential Environments, Assist University Bulletin For Environmental Researches, Volume 1, March
6. **Yassin M.F.** (2013) Numerical simulation of the impact of street geometry on vehicle emissions in urban area, Int. J. of Environment and Pollution, 53(1/2), 46-63
7. AL-Harbi M., Alshaiban A., **Yassin M.F.**, Elmi A. (2013) Kinetic analysis and modelling of thermal degradation of perspex (PMMA) and perspex blend plastic waste, The Canadian Journal of Chemical Engineering, 91(7), 1281-1288
8. **Yassin M.F** (2013) "Numerical Modeling on Air Quality in an Urban Environment with changes of the Aspect Ratio and Wind Direction" Environmental Science and Pollution Research, 20, 3975-3988
9. **Yassin M.F.** (2013) "Experimental study on contamination of building exhaust emissions in urban environment under changes of stack locations and atmospheric stability" Energy and Buildings, 62, 68-77.
10. **Yassin M.F.**, Ohba M. (2013) "Effect of Street Geometrical Layout on Dispersion emissions of Traffic Exhaust: Experimental Simulation" Clean Technologies and Environmental Policy, 15(1) 167-177.
11. **Yassin M.F** (2013) "A wind tunnel study on the effect of thermal stability on flow and dispersion of rooftop stack emissions in the near wake of a building" Atmospheric Environment, 65, 89-100.
12. **Yassin M.F.**, Al-Harbi M (2013) "Numerical Simulation on Wind Flow over Step-shaped Cliff Topography with Rough Surface" International Journal of Environmental Research, 7(1), 173-186.
13. **Yassin M.F.**, Takahashi T., and Kato S. (2012) "Experimental simulation of wind flow over the ridge topography", Air Quality, Atmosphere and Health, 5(3) 293-301
14. **Yassin M.F.**, Ohba M. (2012) "Experimental Simulation of Air Quality in Street Canyon under Changes of Building Orientation and Aspect Ratio" Journal of Exposure Science and Environmental Epidemiology; 22(5) 502-515
15. **Yassin M.F.**, AlThaqeb B., AlMutairy E. (2012) "Assessment of Indoor PM2.5 in Different Residential Environments" Atmospheric Environment; 56(9) 65-68
16. Al-Harbi M., **Yassin M.F.**, Bin Shams M. (2012) "Stochastic Modeling of the Impact of Meteorological Conditions on Road Traffic Accidents" Stochastic Environmental Research and Risk Assessment, 26:739-750
17. **Yassin M.F.** (2012) "Filtering Effect of Wind Flow Turbulence On Atmospheric Pollutant Dispersion" Environmental Monitoring and Assessment, 184 (6), 3749-3760

18. **Yassin M.F.** and Ohba M. (2012) "Experimental Study of the Impact of Structural Geometry and Wind Direction on Vehicle Emissions in Urban Environment" *Transportation Research Part D: Transport and Environment*, 17, 181-189
19. Hamza R.M.A., Alkhyat S.S., **Yassin M.F.**, Khudiar R. O., Raghab F. (2012) Traffic Emission Impact of Primary Formaldehyde in Ali Sabah Al-Salem Residential Area, *Gulf University Journal*, 4(1) 87-100.
20. **Yassin M.F.** (2011) "Impact of height and shape of building roof on air quality in urban street canyons" *Atmospheric Environment*, 45(29), 5220-5229.
21. **Yassin M.F.** and Al-Awadhi M. M. (2011) "Impacts of Sulfur Dioxide Emissions of power station on the Ambient Air Quality" *Environmental Engineering Science*, 28(7), 469-475.
22. **Yassin M.F.** and Elmi A. (2011) "Stochastic Analysis of Concentration Field in a Wake Region" *Environmental Science and Pollution Research*, 18(2), 270-281.
23. **Yassin M.F.** and Almouqatea S. (2010) "Assessment of airborne bacteria and fungi in an indoor and outdoor environment" *International Journal of Environmental Science and Technology*, 7 (3), 535-544
24. **Yassin M. F.**, Kellnerov R. and Janour Z (2009) "Experimental Simulation on Vehicle emission dispersion in urban street configurations" *Kuwait Journal of Science and Engineering*, 36(2B), 13-3.
25. **Yassin M. F.** (2009) "Numerical Study of Flow and Gas Diffusion in the Wake behind an Isolated Building" *Advances in Atmospheric Sciences*, 26(6), 1241-1252.
26. **Yassin M.F.**, Ohba M., and Tanaka H. (2008) "Experimental Study on Gaseous Diffusion behind an isolated building" *Environmental Monitoring and Assessment*. 147 (1-3), 149-158.
27. **Yassin M.F.** (2007) "Experimental Study on Turbulence Flow Characteristics over a Step Model" *Journal of Engineering Sciences, Assiut University*, Vol.35, No. 3, pp. 829-834.
28. **Yassin M.F.** (2006) "Investigation of two dimensional wake pressures downstream of perforated plates" *Journal of Engineering Sciences, Assiut University*, Vol.34, No.5, pp. 1605-1612.
29. **Yassin M.F.**, Kato S., Ooka R., Takahashi T. and Kouno R. (2005) "Field and Wind Tunnel study of the pollutant diffusion in built-up area under variable meteorological Conditions" *Journal of Wind Engineering and Industrial Aerodynamics*, 93(5), 361-382. (Extracted from Ph. D. thesis)
30. Takahashi T., Kato S., Murakami S., Ooka R., **Yassin M.F.**, and Kouno R. (2005) "Wind Tunnel Tests of Effects of Atmospheric Stability on Turbulence Flow over a Three-Dimensional Hill" *Journal of Wind Engineering and Industrial Aerodynamics*, 93(2), 155-169 .

31. Takahashi T., Ohtsu T., **Yassin M.F.**, Kato S. and Murakami S. (2002) "Turbulence characteristics of wind over a hill with a rough surface" Journal of Wind Engineering and Industrial Aerodynamics, 90 (12-15), 1697–1706.

***Published proceedings and selected conference presentations (Refereed Papers)***

1. Sarah AL Mutairi , **Mohamed .F. Yassin**, Hassan Dashty, Osama AL Methen, (2014) "Dust Storms in Kuwait: Sources of Origin" DUST2014 - International Conference on Atmospheric Dust, Castellana Marina, Taranto, Italy, June 1-6, p. 18, (Abstract)
2. **Yassin M.F.**, Abu kassem (2014) Effect of Atmospheric Condition on Pollutant Dispersion Of Building Stack Emissions, 9<sup>th</sup> international conference on Air quality Science and application, Germany, 24-28 March, p.301 (one page).
3. Almethen O., **Yassin M.F.**, Abu kassem (2014) Surface Ozone Assimilations In Kuwait International Airport, First Kuwait International Conference on Life Sciences, 6-8 April, p.45 , (Abstract)
4. Almutairi H., **Yassin M.F.** and Al Shatti T. (2014) Study of indoor noise levels in kindergarten schools in Kuwait, First Kuwait International Conference on Life Sciences, 6-8 April, p. 61 , (Abstract)
5. Mosaab M. Al-Awadhi, Al-Harbi M, Almi A., **Yassin M.F.** (2013) Assessment of Gaseous Dispersion from Landfill over Residential Area, Hong Kong International Conference on Engineering and Applied Science, Dec. 19-20, HongKong, p. 457-471.
6. **Yassin M.F.**, Kassem M. A. (2013) Computational Fluid Dynamics Study the Effect of Wind Direction on Pollutants dispersion in Street canyon, 3<sup>rd</sup> Asian Network of Environment Research & Energy conference 2011, Korea, October 31-November 2, p.42-46.
7. Sarah AL Mutairi , Osama AL Methen, **Mohamed .F. Yassin** (2012) "Assessment of Dust Storm Sources in Kuwait" The Regional Conference on Dust and Dust Storms, 20-22, November, Kuwait, p. 41 (Abstract)
8. **Yassin M. F.** (2012) "Impact of Urban intersection on Pollutant Dispersion" Conference on Present Environment in Arabic World" 15-16 April, Kuwait, p.1-13.
9. **Yassin M. F.** (2011) "Numerical Study on Flow and Pollutant Dispersion in Street Canyon with Change Roof Height", 14<sup>th</sup> International Conference on Harmonization within Atmospheric Dispersion Modeling for Regulatory Purposes, Greece, 2-6 October, p. 599-605
10. **Yassin M. F.** (2011) "Impacts of Urban intersection on Atmospheric Dispersion of Traffic Exhaust Emissions", Asian Network of Environment Research & Energy conference 2011, Korea, 28-29 September, p.1-3.
11. **Yassin M. F.** and Ohba M. (2011) "Wind Tunnel Study on Pollutant Dispersion in Street Canyon with Changing Aspect Ratio and Wind Direction" workshop on

physical modeling of flow and dispersion phenomena, August 22-24, Hamburg, Germany. P. 47-54

12. **Yassin M. F.** and Ohba M. (2011) "Experimental Study on gaseous Dispersion in Street Canyon" International Conference on Environmental Pollution and Remediation, 17-19, Ottawa, Canada, p. 96-1 – 96-8
13. Mosaab M. Al-Awadhi, **Yassin M.F.** (2010) "Evaluating the Impacts of SO<sub>2</sub> Emissions from power station in Kuwait" 18<sup>th</sup> International Conference on Modeling, Monitoring and Management of Air Pollution, 21-23 June, Greece, p. 59-70
14. **Yassin M.F.** (2010) "Impact of Flow Obstacles on pollutant dispersion under changing Elevated Point Source and thermal stability" 13<sup>th</sup> International Conference on Harmonisation within Atmospheric Dispersion Modeling for Regulatory Purposes, Paris, France, 1-4 June, p. 585-589.
15. **Yassin M.F.** (2010) "Numerical Simulation of Pollutant Dispersion from Point Source in an Urban Area", ICEME, Orlando, USA, 4-9, April, p. j1-j5.
16. **Yassin M. F.** (2009) "Numerical investigation of Flow and Gas Diffusion in the Wake behind an Isolated Building" International Workshop on Physical Modeling of Flow and Dispersion Phenomena, Belgium, August 24<sup>th</sup> - 27<sup>st</sup>, p. J.4.1-J.4.7
17. **Yassin M.F.**, Radka K. and Janour Z. (2009) "Impact of Crossroad Configuration on Pollutant Dispersion" 17<sup>th</sup> Transport and Air Pollution Symposium & 3<sup>rd</sup> Environment and Transport Symposium, June 2-4, Toulouse, France, p.1-7
18. **Yassin M.F.** , Gebali F., (2009) "Methodologies for Data Mining and Modeling of Atmospheric Pollutants" International Conference on Information Science, Technology and Applications (ISTA), March 20-22, Kuwait, p. 1-9..
19. Gebali F., **Yassin M.F.** (2009) "Data Mining Model for Atmospheric Pollutants from Elevated Point Sources" International IEEE GCC Conference, March 16-19, Kuwait, p.124-133.
20. **Yassin M.F.** (2007) "Numerical Simulation on Gas Dispersion emitted from Different Height of Point source" 3<sup>rd</sup> conference for the International congress of chemistry and environment, Nov 18-20, Kuwait, p.408-420.
21. Radka K., **Yassin M.F.** and Janour Z. (2007) "Wind-tunnel modeling and numerical simulation within urban intersection" International Workshop on Physical Modeling of Flow and Dispersion Phenomena, FRANCE, August 29<sup>th</sup> - 31<sup>st</sup>, p. 1-5
22. Janour Z., Bezpalcova K., **Yassin M.F.** , Brych K., Ditttr F. and Ditttrich F. (2007) "A potential risks in industrial sites – wind tunnel" 6<sup>th</sup> International Conference on Urban Air Quality, Cyprus, 27-29 March, p.1-6

23. **Yassin M.F.**, Ohba M. and Tanaka (2006) "The influence of obstacles on the flow and pollutant dispersion in an Urban Environment" 14<sup>th</sup> joint conference on application of air pollution meteorology with the air and waste management Assoc, Atlanta, Georgia, USA, January 29 –February 2., p. 1-9.
24. **Yassin M.F.**, Kato S., Ooka R., Takahashi T. and Kouno K. (2003) "Study on Effects of Fluctuations in the Wind Direction on Pollutant Diffusion in an Urban Area" Eleventh Int. Conf. on Modeling., Monitoring and Management of Air Pollution, Catania, Italy, Sept. 17-19, p. 1-10. (Extracted from Ph. D. thesis)
25. Takahashi T., Kato S., Ooka R., **Yassin M.F.** and Kouno R. (2003) " Wind Tunnel Tests of Effects of Atmospheric Stability on Turbulence Flow over a Three-Dimensional Hill " Eleventh International Conference on Wind Engineering, Lubbock, Texas, USA, June 2-5, p. 1-8. (Extracted from Ph. D. thesis)
26. **Yassin M.F.**, Kato S., Ooka R., Takahashi T. and Kouno R. (2003) " Prediction of the Pollutant Diffusion in an Urban Environment: Full-Scale Field and Wind Tunnel Experiments" Eleventh International Conference on Wind Engineering, Lubbock, Texas, USA, June 2-5, p. 1-21(Extracted from Ph. D. thesis)
27. **Yassin M.F.**, Kato S., Ooka R., Takahashi T. and Kouno R. (2003) " Study on Pollutant Diffusion with Fluctuations of Wind Direction over Built up Area: Part II. Wind Tunnel Experiments" Summaries of Technical Papers of Annual Meeting, AIJ, p. 1-2. (Extracted from Ph. D. thesis)
28. Urano A. **Yassin M.F.**, Kato S., Ooka R., Takahashi T., Song D. and Kouno R. (2003) "Study on Pollutant diffusion with Fluctuations of Wind Direction over Built up Area: Part I. Full-Scale Field" Summaries of Technical Papers of Annual Meeting, AIJ, p. 1-2 (Extracted from Ph. D. thesis)
29. **Yassin M.F.**, Kato S., Ooka R., Takahashi T. and Kouno K. (2003) "Study on the effect of thermal stratification on contamination diffusion emitted from a point source "Annual Meeting on Wind Engineering, Sandi, Japan, and May 26-27, p. 1-2(Extracted from Ph. D. thesis)
30. Takahashi T. , Kato S., Ooka R., **Yassin M.F.** and Kouno R. (2003) " Wind tunnel study on prediction of wind characteristic over local topography for suitable site of wind power station (Part 10): Wind Tunnel Tests on Wind Velocity Over a Complex Terrain at Shiono-Misaki" Summaries of Technical Papers of Annual Meeting, AIJ, p. 1-2
31. Kouno K., Kato S., Ooka R., Murakami S., Takahashi T. and **Yassin M.F.**, Ohtsu T. (2002) "Wind tunnel study on prediction of wind characteristic over local topography for suitable site of wind power station (Part 8): study on site planning of wind power station based on measurement of wind drag" Summaries of Technical Papers of Annual Meeting, AIJ, p. 1-2

32. Takahashi T., Kato S., Ooka R., Murakami S., **Yassin M.F.**, Ohtsu T. and Kouno K. (2002) "Wind tunnel study on prediction of wind characteristic over local topography for suitable site of wind power station (Part 7): Study on distribution leeward wind velocity of wind turbine" Summaries of Technical Papers of Annual Meeting, AIJ, p. 1-2.
33. **Yassin M.F.**, Kato S., Ooka R., Takahashi T., Ohtsu T. and Kouno K. (2002) "Wind tunnel study on prediction of wind characteristic over local topography for suitable site of wind power station (Part 6): Properties of flow over a three-dimensional ridge crossing hill" Summaries of Technical Papers of Annual Meeting, AIJ, p. 1-2
34. Ohtsu T., Kato S., Ooka R., Takahashi T., **Yassin M.F.** and Kouno K. (2002) "Wind tunnel study on prediction of wind characteristic over local topography for suitable site of wind power station (Part 5): wind tunnel tests on characteristics of turbulent flow over a three dimensional hill" Summaries of Technical Papers of Annual Meeting, AIJ, p. 1-2
35. **Yassin M.F.**, Kato S., Ooka R. and Takahashi T. (2002) " Wind Tunnel Study of the Flow and Pollutant Diffusion over an Urban Environment" 17th International Symposium on Wind Engineering, Tokyo, Japan, 4 - 6 Dec., p.1-9 (Extracted from Ph. D. thesis)
36. Kouno K, Kato S., Takahashi T., Ooka R., Murakami S., and **Yassin M.F.** (2002) " Wind Tunnel Study on the Leeward Wind Velocity of Wind Turbine Model" 17th International Symposium Conf. on Wind Engineering, Tokyo, Japan, 4 - 6 Dec, p. 1-2.
37. **Yassin M.F.**, Kato S., Ooka R., Takahashi T and Ohtsu T. (2002) " Wind Tunnel Study on the Pollutant Dispersion over an Urban area" Tenth International Conference on Modeling., Monitoring and Management of Air Pollution, 1-3 July, Segovia, Spain, p.1-19. (Extracted from Ph. D. thesis)
38. Takahashi T., Ohtsu T., **Yassin M.F.**, Kato S., Murakami S. (2001) "Turbulence Characteristics of Wind Over a Hill with a Rough Surface" The Fifth Asia-Pacific Conference Wind Engineering, Kyoto, Japan, Oct. 21-24, p. 1-9.
39. **Yassin M.F.**, Kato S., Ooka R., Murakami S., Takahashi T. and Ohtsu T. (2001) "Wind tunnel study on prediction of wind characteristic over local topography for suitable site of wind power station (Part 3): turbulent characteristics of flow over a two dimensional step model" Summaries of Technical Papers of Annual Meeting, AIJ, p. 1-2.
40. Takahashi T., Kato S., Ooka R., Murakami S., **Yassin M.F.**, and Ohtsu T. (2001) "Wind tunnel study on prediction of wind characteristic over local topography for suitable site of wind power station (Part 4): Study on characteristics of turbulent flow over a two dimensional forward step model" Summaries of Technical Papers of Annual Meeting, AIJ, p.1-2.
41. Ohtsu T., Kato S., Murakami S., Takahashi T., and **Yassin M.F.** (2001) "Wind tunnel study on prediction of wind characteristic over local topography for suitable site

of wind power station (Part 2): Study on characteristics of turbulent flow over a two dimensional hill" Summaries of Technical Papers of Annual Meeting, AIJ, p.1-2.

42. Takahashi T., Murakami S., Kato S. and **Yassin M.F.** (2000) "Wind tunnel study on prediction of wind characteristic over local topography for suitable site of wind power station (Part 1): Study on characteristics of turbulent flow over a two dimensional hill" Summaries of Technical Papers of Annual Meeting, AIJ, p.1-2.

### **International Scientific Community services**

#### ***Associate Editor:***

- International journal of Environmental Science and Technology
- International Journal in Environmental Science And Toxicology
- Mindanao Journal of Science and Technology - Mindanao University of Science and Technology, Philippines

#### ***Editorial Board:***

- Journal of Environmental Conservation Research
- Current Environmental Engineering

#### ***Advisor Editorial Board:***

- Journal of Environmental Treatment Techniques

### **Referees for International Books & Journals**

#### ***1-Books***

“Turbulence and Air Pollution Modeling”, by Davidson More, Bentham Science Publishers, [www.bentham.org](http://www.bentham.org)

#### ***2-International Journals***

- Atmospheric Environment
- International journal of Environmental Science and Technology
- Atmospheric Research
- Indoor Air
- Urban Climate
- Aerosol and Air Quality Research
- Environmental Fluid Mechanics

- Environmental Science and Pollution Research
- Environment Monitoring and Assessment
- International Journal of Numerical Methods for Heat and Fluid Flow
- Journal of the Air & Waste Management Association
- Environmental Engineering Science
- Atmospheric Pollution Research
- International Journal of Computational Fluid Dynamics
- Simulation: Transactions of the Society for Modeling and Simulation International
- Engineering Applications of Computational Fluid Mechanics
- CLEAN - Soil, Air, Water (A Journal of Sustainability and Environmental Safety)

### **Honors and Awards**

- 1- Scholarship from the Egyptian Ministry of Higher Education, for five years
- 2- Fellowship from the Japan Society for the Promotion of Science (JSPS), for two years
- 3- Naces Center for Mathematical Modeling, Faculty of Nuclear Science of the Czech Technical University, Prague, Czech, for 6 months.

### **Training Courses**

- Training Course on CFD models presented, Atsugi, Japan from 14-15 July, 2006.
- Training Course on Air Pollution Issues and Simulation Modeling, presented in Catania, Italy from 15-16 September 2003.

### **Computer skills**

- |                           |   |
|---------------------------|---|
| • Administration:         | Windows - Linux   |
| • Finite volume packages: | FLUENT CODE (CFD models)  |
| • Grid design packages:   | GAMBIT  |
| • Engineering:            | MATLAB – TECPLOT-SURFAR   |
| • Programming languages:  | Fortran, GWBAS  |
| • Air Quality Modeling:   | AERMOD/SIC – AERMET – AERSCREEN<br>SCREEN3 2.0 – CALPUFF – ROADS-HAZ-<br>DISPARS ADAMS –RStudio-OPANAIR (open-<br>source tools for analyzing air pollution data)- R-<br>Statistic |

- |                       |                   |
|-----------------------|-------------------|
| • Noise Modeling      | CUSTIC            |
| • Statistic modeling: | SPSS - STATISTICA |
| • GIS                 | ARCGIS- MAP -INFO |

### **Teaching Experience**

#### **(a) *Graduate courses***

1. Environmental problem Solving with Computers
2. Air pollution and climate change
3. Noise Pollution Control

#### **(b) *Undergraduate courses***

1. Applied Calculus
2. Algebra
3. Introduction to environmental Science
4. Environmental chemistry and physics
5. Introduction to Quantitative Environmental Analysis
6. Introduction to environmental technology management
7. Introduction to Geographic Information System (GIS)
8. Humans & Their Environment
9. Environment statistics
10. Applied of information system in Environmental Technology and Management
11. Air Quality control Technology
12. Environmental planning and impact assessment (EIA)
13. Environmental Management Systems (EMS)
14. Environmental data Management
15. Environmental risk assessment (ERA)
16. Special topics in Environmental Technology and Management
17. Capstone Project
18. PORTFOLIO

### **Participation in Annual Meetings**

1. Annual meeting, Architectural Institute of Japan, 2000
2. Annual meeting, Architectural Institute of Japan, 2001

3. Annual meeting, Architectural Institute of Japan, 2002
4. Annual meeting, Wind Engineering, Japan, 2002
5. Annual meeting, Architectural Institute of Japan, 2003
6. Annual meeting, Wind Engineering, Japan, 2003

### **Participation in Conferences**

1. First Kuwait International Conference on Life Sciences, Kuwait, 6-8 April, 2014
2. 3<sup>rd</sup> Asian Network of Environment Research & Energy conference 2011, Korea, October 31-November 2, 2013.
3. The Workshop on Kuwait Environmental Indicators Kuwait Integrated Environmental Information Network (KIEIN) 30 January, Kuwait, 2013
4. Capacity Building Workshop and Training on “ Developing an Emission Inventory System for the State of Kuwait”, 13, January, Kuwait, 2013
5. Ambient Air Monitoring Instrument Calibration/Network Operations Workshop , 27-29, November, Kuwait, 2012
6. The Regional Conference on Dust and Dust Storms, 20-22, November, Kuwait, 2012
7. the First Environmental Conference and Exhibition on “The Role of Private & Public Sector in Development, Environment and Sustainability”, 12<sup>th</sup> - 14<sup>th</sup> November 2012, Kuwait
8. Research Scientific workshop on Methods of Scientific Research Writing and Statistical Analysis (SPSS)”, 5-6, November, 2012
9. Environmental Management in oil, gas and petrochemical industrial conference and exhibition, 17-18 Oct., 2012, Kuwait
10. A prospective on Kuwait’s Environment 2012. 5 June, 2012, Kuwait
11. Conference on Present Environment in Arabic World” 15-16 April, 2012, Kuwait
12. 4<sup>rd</sup> Kuwait Waste management Conference & Exhibition 18<sup>th</sup>-19<sup>th</sup>, Oct. 2011, Kuwait.
13. 14<sup>th</sup> International Conference on Harmonization within Atmospheric Dispersion Modeling for Regulatory Purposes, Greece, 2-6 October, 2011.
14. 1<sup>st</sup> Asian Network of Environment Research & Energy conference 2011, Korea, 28 - 29 September, 2011.
15. International Workshop on Physical Modeling of Flow and Dispersion Phenomena, Hamburg, Germany, August 23- 25, 2011
16. International Conference on Environmental Pollution and Remediation, Ottawa, Canada, August 17-19, 2011

17. 13<sup>th</sup> International Conference on Harmonization within Atmospheric Dispersion Modeling for Regulatory Purposes, Paris, France, 1-4 June, 2010.
18. International Workshop on Physical Modeling of Flow and Dispersion Phenomena, Belgium, August 24th - 27st, 2009
19. 17th Transport and Air Pollution Symposium & 3rd Environment and Transport Symposium, June 2-4, Toulouse, France, 2009
20. International Conference on Information Science, Technology and Applications (ISTA ), March 20-22, Kuwait, 2009
21. International IEEE GCC Conference, March 16-19, Kuwait, 2009
22. 3<sup>rd</sup> conference for the International congress of chemistry and environment, Nov 18-20, Kuwait, 2007
23. International Workshop on Physical Modeling of Flow and Dispersion Phenomena, FRANCE, August 29th - 31st, 2007
24. 6<sup>th</sup> International Conference on Urban Air Quality, Cyprus, 27-29 March, 2007
25. The Fourth International Symposium on Computational Wind Engineering (CWE2006) 16–19 July, Japan 2006.
26. 14<sup>th</sup> joint conference on application of air pollution meteorology with the air and waste management Assoc, Atlanta, Georgia, USA, January 29 –February 2, 2006.
27. Eleventh International. Conf. on Modeling, Monitoring and Management of Air Pollution, 17-19 Sept., Italy, 2003
28. Eleventh International Conference on Wind Engineering, Lubbock, Texas, USA, June 2-5 , 2003
29. Tenth Int. Conf. on Modeling, Monitoring and Management of Air Pollution, 1-3 July, Spain, 2002
30. The Fifth Asia-Pacific Conference Wind Engineering, Kyoto, Japan, 2001

#### **Participation in Annual Meetings**

1. Annual meeting, Architectural Institute of Japan, 2000
2. Annual meeting, Architectural Institute of Japan, 2001
3. Annual meeting, Architectural Institute of Japan, 2002
4. Annual meeting, Wind Engineering, Japan, 2002
5. Annual meeting, Architectural Institute of Japan, 2003
6. Annual meeting, Wind Engineering, Japan, 2003

### **Administrative / Community Service**

1. Member of the Environmental Committee, Faculty Engineering, Assiut University, Egypt, 2004/2005
2. Member of the Student Activity Committee, Faculty Engineering, Assiut University, Egypt, 2004/2005
3. Member of the Election of Union Students Committee , Faculty Engineering, Assiut University, Egypt, 2004/2005
4. Member of the Laboratory Equipping Committee, Faculty of Engineering, Assiut University, Egypt, 2004/2005
5. Chairman of Schedule Committee, Department of Environmental Technology and Management, College for Women, Kuwait University, Kuwait 2009/2010, 2010/2011& 2011/2012, 2012/2013
6. Chairman of the Library Committee, Department of Environmental Technology Management, College for Women, Kuwait University, Kuwait 2007/2008
7. Chairman of the Planning Committee, Department of Environmental Technology Management, College for Women, Kuwait University, Kuwait 2008/2009 & 2010/2011
8. Chairman of Student Portfolio Committee, Department of Environmental Technology and Management, College for Women, Kuwait University, Kuwait 2009/2010
9. Member of Schedule Committee, Department of Environmental Technology and Management, College for Women, Kuwait University, Kuwait 2007/2008, 2008/2009,
10. Member of Student Portfolio Committee, Department of Family Science, College for Women, Kuwait University, Kuwait 2008/2009, 2009/2010 & 2010/2011.
11. Member of Research and Academic Committee, Department of Environmental Technology and Management, College for Women, Kuwait University, Kuwait 2008/2009, 2009/2010, 2010/2011 & 2011/2012.
12. Member of Student Portfolio Committee, Department of Food and Nutrient Science, College for Women, Kuwait University, Kuwait 2009/20010, 2010/2011, 2011/2012, 2012/2013, 2013/1014
13. Member of the library Committee, Department of Environmental Technology Management, College for Women, Kuwait University, Kuwait 2007/2008, 2008/2009, 2010/2011, 2012/2013.
14. Member of the college council, College for Women, Kuwait University, Kuwait, 2008/2009.
15. Academic advisor Department of Environmental Technology and Management, College for Women, Kuwait University, Kuwait 2011/2012, 2012/2013, 2013/2014