

## CV of Dr. Waleed Mohammad K. Zahid

**Present Employment:** Chairman of the Civil Engineering Department - College of Engineering - King Saud University, Associate Professor of Environmental Engineering.

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### Education

- **B.E.**, Civil Engineering, King Saud University, Riyadh, Saudi Arabia, 19/2/1983.
- **M.A.Sc.**, Environmental Engineering, University of Toronto, Toronto, Canada, 17/3/1988.
- **Ph.D.**, Environmental Engineering, University of Toronto, Toronto, Canada, 25/3/1993.

### Employment History

- Civil Engineering Department, College of Engineering, King Saud University:
  - Teaching Assistant: 5/3/1983 – 8/2/1993
  - Assistant Professor: 9/2/1993- 3/5/2003
  - Associate Professor: since 3/5/2003
  - Chairman of Civil Engineering department: since 12/2008
  - Director of "Prince Khalid Bin Sultan Chair for Water Research": since 22/4/2008

### Consulting Experience

- (1) Part-time consultant for the Arriyadh Development Authority (ADA) since 1996:
  - the Metropolitan Development Strategy For Arriyadh (MEDSTAR): ADA Environmental and Infrastructure Specialist (Sine June 1996)
  - the Strategic Plan for ArRiyadh Region(SPAR): Member of the technical committee (sine 2005).
  - The Structural Plans for the Northern and Eastern Suburbs in Riyadh: Member of the technical committee (sine 2005).
  - The Higher Committee for Environment Protection: Member of the technical committee (sine 2006).

- (2) Part-time consultant for the Ministry of Transportation (1999-2000)
- The team leader of the project “The transport and the environment”.
  - Organizing with the Presidency of Meteorology and Environment the environmental issues concerning the ministry.
- (3) Member of the Experts committee for Evaluating Works Submitted for Prince Sultan Bin Abdulaziz International Prize for Water (2<sup>nd</sup> Award 2004-2006G).
- (4) A representative for the Ministry of Higher Education in the Technical Committee for Studying the Reuse of Greywater for Toilet Flushing In Hospital and Health-Care Centers (2006G /1427H).
- (5) Reviewing and Inspecting designs and drawings of water supply, sewage and fire fighting systems for colleges buildings in new Saudi Universities – Ministry of Higher Education - A project via King Abdullaha Center for Research and Consulting Studies, King Saud University, Riyadh, Saudi Arabia, since 1427H /2006G.

### **Teaching Experience**

- Teaching several under- and post-graduate courses in the filed of Environmental Engineering:  
Water supply and Drainage Systems, The Industry and The Environment, Environmental Engineering, Water and Wastewater Treatment, Biological Treatment Processes, Wastewater Reclamation and Reuse, Solid Waste Management, Hazardous Waste Management, Advanced Topics in Environmental Engineering, Selected Topics in Environmental Engineering, and Computer Applications in Engineering.
- Supervised and co-supervised several Ph.D, Master, and Bachelor theses

### **Councils**

- Member of the Civil-Engineering-Department Council since 1993
- Chairman the Civil-Engineering-Department Council since 12/2008
- Member of the College-of-Engineering Council for the academic year 2007/2008
- Member of the College-of-Engineering Council since 2008 as a chairman of the civil engineering department
- Convener and/or member of the council of the environmental engineering group at the civil engineering department
- Convener of the Civil-Engineering Student Council since 2/2009
- Convener of the Civil-Engineering Graduate Students Council since 11/2010

- President of the Industrial Advisory Council of the Civil Engineering Department since 2009

### **Scholarship & Rewards**

- Scholarship from King Saud University to acquire the Master and Ph.D degrees, 1984
- Gold Medal Conferred by the 9<sup>th</sup> British Invention Show of The British Inventor Society (Oct., 2009)

### **Community Service**

- Convener and member of several committees and activities at the department and college levels.
- Chairman and member of different committees for several conferences and symposia.
- Chairman of several sessions of conferences and symposia.
- Refereeing several research papers for local and international scientific journals
- Refereeing several research projects sponsored by King AbdulAzizi City for Science & technology.
- Principal Investigator for several research projects granted by scientific research entities of King Saud University.
- Participating in several TV and Radio programs.
- Designed, organized, and lectured in the following 3-day seminars, in cooperation with the Engineering Committee in Riyadh:
  - “Municipal Solid wastes Management” held in Jeddah (28-30 Nov. 1994).
  - “Wastewater Treatment Techniques” held in Jeddah (19-22 Nov. 1995).
- Keynote Speaker for the following workshops organized by the Ministry of Municipality and Rural Affairs, Riyadh:
  - Cleansing Work for Municipal Solid Waste, 4-5/6/1420H
  - Disposal of Municipal Solid Waste: Landfilling and Others, 25-26/6/1420H
- Presenting three scientific lectures in the short course “Solid Wastes: important issues before decision makers”, organized by Arabian Fund for Economic and Social Development, Manama, Bahrain, Dec. 2001.

### **Research Interests**

- Water reuse, Use Applications and Cost Estimation

- Trace elements and metals in Wastewater Effluents and Biosolids
- Design and Cost Estimation of Wastewater Treatment Plants
- Analysis and Simulation of Performance of Wastewater Treatment Plants
- Tertiary Sand Filtration (using local sands)
- Biological Wastewater Treatment by Trickling Filtration
- Use of Membrane filtration for the Biological Treatment of Wastewater (Membrane Bioreactors, MBRs) and for the Tertiary Filtration (using local materials)
- Evaluating Oxidation Ditches for the Biological Treatment of Domestic Wastewater in Saudi Arabia.
- Environmental Noise and Measurement.

### **Funded Research Projects**

- The principal Investigator of a research project entitled “Investigating the use of Local Sand for Tertiary Filtration of Wastewater”, Funded by the Research Center, College of Engineering, King Saud University, Riyadh, Saudi Arabia, (2000-2001).
- The principal Investigator of a research project entitled “Effect of Mechanical Flocculation on the Performance of Tertiary Sand Filtration”, Funded by the Deanship of Scientific Research, King Saud University, Riyadh, Saudi Arabia (2003- 2005).
- The principal investigator of a research project entitles "Evaluation of the Oxidation-Ditch Process for the Biological treatment of Municipal Wastewater in Saudi Arabia", Funded by the National Program Unit for Science & Technology, Vice Rectorate for Knowledge Exchange and Technology Transfer, King Saud University, Riyadh, Saudi Arabia (5/2009-5/2011).

### **Training Courses and Workshops**

- Training Course: “Principles of Environmental Enforcement and Compliance”, The U.S. Environmental protection Agency and the Saudi Arabian Meteorology and Environmental Protection Presidency, Dhahran, Saudi Arabia, 7-9 Nov. 1999.
- Training workshop: ”Sustainable and Integrated Management for the Development of Water Resources and their Utilization Systems”, The Arabian Council of Higher Studies and Scientific Research, Cairo University, Cairo, Egypt, 11-16/5/2002.
- Training Program "Leading Academic Departments", Deanship of Skills Development – King Saud University, 9-10/11/2009

- Workshop: "Quality Achievement in Colleges", Rectorate of Development and Quality – Deanship of Quality, 3/2/1431H corresponding to 18/1/2010
- Workshop: "Requirements of NCAAA (National Commission for Academic Accreditation & Assessment), College of Engineering, King Saud University, 11/4/2010
- Workshop: "Analysis of the Strategic Plan for Vice Rectorate of Graduate Studies and Research", King Saud University, 4/10/2010

### **Professional Membership**

- Water Environment Federation (US)
- The International Association on Water Pollution Research & control, IWA (U.K.).
- American Water Work Association, AWWA (US)
- Saudi Society of Civil Engineering (Saudi Arabia).
- Saudi Association For Engineers(Saudi Arabia)

### **Publications**

1. Zahid, W. M., and Ganczarczyk, J. J. (1990) "**Suspended Solids in Biological Filter Effluents**", *Water Research*, 24, 2, 215-220.
2. Ganczarczyk, J. J., and Zahid, W. M., and Li, D. H. (1992) "**Physical Stabilization and Embedding of Microbial Aggregates For Light Microscopy Studies**", *Water Research*, 26, 12, 1695-1699.
3. Zahid, W. M., and Ganczarczyk, J. J. (1994) "**Fractal Properties of the RBC Biofilm Structure**", *Wat. Sci. Technol.*, 29(10-11), 271-279.
4. Zahid, W. M., and Ganczarczyk, J. J. (1993) "**Structure of RBC Biofilms**", *Water Environment Research*, 66, 100-106.
5. Zahid, W. M., and Ganczarczyk, J. J. (1994) "**A Technique for Characterization of RBC Biofilm Surface**", *Water Research*, 28,2229-2231.
6. Zahid, W. M., and Ganczarczyk, J. J. (1995) "**Effects of Organic Suspended Solids on Biofilm Performance**" Presented at the Thirtieth Central Canadian Symposium on Water Pollution Research, Burlington, Ontario, Canada, February 6-7.
7. Zahid, W. M., Misbahudin, M., and Al-lahem, S. "**Effect of Physical Flocculation on the Settleability of Biological-Filter Effluent Solids**"

*Proceedings of the Symposium on Wastewater Treatment Technology and Reuse, Arriyadh, Saudi Arabia, Nov. 18-20, 1996, pp 310-327.*

8. **Zahid, W. M., Al-Shaye, I. A., and Al-Zukair, A. S. "Status of Water Resources in Arriyadh city"** Presented at the Conference of Development and Environmental Impact, Riyadh, Saudi Arabia, 21-23/9/1997. (In Arabic)
9. **Zahid, W. M., and Al-Shaye, I. A., "Drinking Water Resources In Riyadh, the Present and Future"** the Journal of King Saud University (Engineering Sciences), Vol. 11, No. 2, 1419H. (In Arabic)
10. **Zahid, W. M. "Development of Municipal Solid Wastes Disposal"** Proceedings of the Symposium on Integrated Solid Waste Management, Jeddah, Saudi Arabia, June 14-16, 1999, pp 53-70 (In Arabic).
11. **Sheik, B., Al-Zukair, A. S., Walker, C., and Zahid W. M., "Riyadh, Kingdom of Saudi Arabia - A Vision of 2021: Introducing Water Reuse to A World Capital"** Presented at the Water Reuse 2000 Conference, San Antonio, Texas, USA, Jan 30-Feb 2, 2000 (In Arabic).
12. **Zahid W. M, and Al-Rehaili A. M., "Reuse of Reclaimed Municipal Wastewater: Evaluation of Local Criteria and Practices in View of International Trends"**, Proceedings of the Symposium on Water Conservation and Protection of the Environment, Madina, Saudi Arabia, Aug. 1-2, 2000 (In Arabic).
13. **Zahid W. M, and Al-Rehaili A. M. (2000) "Reuse of Municipal Wastewater in Saudi Arabia: Treatment Systems, Reuse Activities and Criteria"**, Arab Gulf Journal of Science Research, Vol. 18, 2, 134-142. (In Arabic)
14. **Zahid W. M. (2001) "Enhancing the Settleability of Trickling-Filter Effluent Solids by Flocculation"** The Arabian Journal for Science and Engineering, Vol. 26, No. 2C, 25-35.
15. **Zahid W. M. (2003) "Tertiary Filtration of Wastewater Using Local Sand"**, Journal of King Saud University, Vol. 16, Engineering Sciences (1), pp. 23-36.
16. **Al-Shaye, I. A., and Zahid W. M. (2003) "Environmental Management In Metropolitan Strategy for Arriyadh"**, Proceedings of the Second

*Arabian Conference on Environmental Management in Local Administration Systems in the Arab World, Sharajh, United Arab Emirates, Jan. 21-23, 2003, pp. 272-288 (In Arabic).*

17. Zahid W. M. (2003) "**Quality of Local and Imported Bottled Water in Saudi Arabia**" Accepted for publication in the Journal of King Abdulaziz University-Engineering Sciences (in Arabic).
18. Zahid W. M. (2003) "**Use of Bottled water at Home and Work In Riyadh City**" Proceedings of WSTA Sixth Gulf Water Conference in concurrence with the Second Symposium on Water Use Conservation in the Kingdom of Saudi Arabia, Riyadh, Kingdom of Saudi Arabia, 8-12 March 2003, pp 235-246 (in Arabic).
19. Zahid W. M. (2003) "**Investigating the Use of Local Sand for Tertiary Filtration of Wastewater**" Proceeding of the 2<sup>nd</sup> International Water Conference in the Arab Countries, Beirut, Lebanon, 7-10 July 2003, pp. 149-162.
20. Al-Shaye, I. A., and Zahid W. M. (2003) "**Towards Integrated Solid and Hazardous Wastes In Arriyadh City**", The Third Periodical Meeting To Develop Performance of Municipal Departments, Municipality of Riyadh, Riyadh, Kingdom of Saudi Arabia, Dec. 27-29, 2003 (In Arabic).
21. Zahid W. M. (2007) "**Cost Analysis of Trickling-Filtration and Activated-Sludge Plants for the Treatment of Municipal Wastewater**", Proceedings of the Seventh Saudi Engineering Conference, Riyadh, Saudi Arabia, 2-5 Dec., 2007, Vol. II, pp. 67-81.
22. Fakhru'l-Razi and W.M. Zahid (2009) "**Recycling and Reuse of Treated Wastewater** ", 2<sup>nd</sup> PKC (Prince Khalid Bin Sultan Chair for Water Research) Workshop on Water Reclamation and Reuse in the 21<sup>st</sup> - Century: Challenges and Opportunities, College of Engineering, King Saud Univ., Riyadh, 29-30 Jun 09.
23. A.R. Pendashteh , A. Fakhru'l-Razi, A. Luqman Chuah, S.S. Madaeni, Z.Z. Abidin, A.B. Dayang Radiah and W.M. Zahid (2009) "**Treatment of hypersaline oilfield produced water for recycle and beneficial reuse**", 5th IWA Specialized Membrane Technology Conf. for Water & Wastewater Treatment, Sept 1-3, 2009, Beijing, China.

24. *Fakhru'l-Razi, Alireza Pendashteh, Luqman Chuah Abdullah, Dayang Radiah Awang Biak, Zurina Zainal Abidin, Sayed Siavash Madaeni and Waleed M. Zahid (2009) "Application of Membrane-coupled Sequencing Batch Reactor to Convert Oilfield Produced Water to Re-usable Quality". 7th IWA World Congress on Water Reclamation and Reuse, 20-25 Sept. 09, Brisbane, Brisbane, Australia*
25. *Fakhru'l-Razi, Pendashteh, A.R., Dayang, R. Awang Biak., Chuah, T.G.Madaeni, S. S., Zurina, Z. Abidin and Waleed M Zahid (2009) "Treatment of Hypersaline Produced Water in a Membrane Sequencing Batch Reactor", FILTECH 2009, Oct. 13–15, Wiesbaden, Germany.*
26. *Fakhru'l-Razi, A. Pendashteh, A. Luqman Chuah, A. Dayang Radiah, S. S. Madaeni, Z. A. Zurina and Waleed M Zahid (2009) "Oilfield Field Wastewater Treatment with Combined Biological and Membrane Method for Reuse Applications", 3rd IWA-ASPIRE Conference & Exhibition, 18-22 Oct. 09, Taipei, Taiwan.*
27. *Zahid W. M. (2010) "Towards Wastewater Reuse In Saudi Arabia", Scientific Forum: Contemporary Systems for Water Disposal, Saudi Association For Engineers, Jeddah, Kind AbdulAziz Univ., 28/3/2010.*
28. *Zahid W. M. (2010) "Reclaimed Municipal Wastewater: A Strategic Water Resource for Saudi Arabia", 1st RTV (Riyadh Technology Valley) Water Workshop: Innovative Solutions for a National Demand, King Saud University, Riyadh, 18/5/2010.*
29. *Zahid W. M., and Elshafai S. A. (2010), "Evaluation of Different Textile Materials for MBR treating Municipal Wastewater in KSA", Prince Khalid Bin Sultan Chair for Water Research (PKC), PKC Forum on "Water Reuse in Developing Countries", College of Engineering, King Saud University, Riyadh, 21/6/2010.*
30. *Mourad, S. M, Khan, MI, Zahid W. M. (2010) "Assessment and Evaluation of the Civil Engineering B.Sc. Program – King Saud University", WCCEE 2010 - 12th IACEE World Conference on Continuing Engineering Education, Singapore, 17-19 Oct, 2010.*
31. *Khan, M. I., Mourad, S. M. and Zahid W. M. (2010) "Development of Engineering Program for ABET Accreditation: Case Study of Civil*



*Engineering B.Sc. Program at King Saud University", WCCEE 2010  
- 12th IACEE World Conference on Continuing Engineering  
Education, Singapore, Oct 17-19, 2010.*