بسم الله الرحمن الرحيم

Professional Summary

Dr.Waleed K. Ahmed

Current Position:

Instructor since 2009
Engineering Requirements Unit
College of Engineering
United Arab Emirates University, Al Ain, UAE

Qualifications	
2002-2006	• **Ph.D. in Applied Mechanics (2002-2006).** Mechanical Engineering Department, College of Engineering University of Mustanseriya-Nottingham University **Strengthening of Thin Walled Circular Steel Tubes by Composite Materials.**
1997-2000	• **M.Sc. in Applied Mechanics** Mechanical Engineering Department University of Technology Iraq. **Parametric Investigation of Cracked Pipes by Finite Element Method.**
1988-1992	• **B.Sc. in Mechanical Engineering.** Mechanical Engineering Department University of Baghdad, Iraq.
Academic Experience in United Arab Emirates University (2007-present)	
Instructor 2009-upto date	Engineering Requirements Unit, College of Engineering, UAEU.
Subject taught:	1. Engineering Practice and Entrepreneurship (GENG315). 2. Engineering Materials (MECH390). 3. Dynamics & Vibrations (MECH 310). 4. Engineering Thermodynamic (GNG220). 5. Differential Equations and Engineering Applications (MATH2210). 6. Linear Algebra& Engineering Applications (MATH2220). 7. Freshman Lab (GENG250). 8. Fluid Mechanic (MECH340). 9. Strength of Materials (MECH446). 10 .Mechanics of Materials (GENG305).
Academic Assistant 2007 to 2009	College Requirements Unit, College of Engineering, UAEU.
Subject taught:	1.Linear Algebra& Eng. Applications (MATH2220). 2.Freshman Lab (GENG250). 3.Engineering Materials **(**MECH390). 4. Intro. to Ethics & Design (GENG215). 5.Engineering Practice & Entrepreneurship (GENG315). 6.Engineering Thermodynamic (GNG220).
Research Assistant 2006-2007	Mechanical Engineering Department. College of Engineering. United Arab Emirates University.
Research Subjects:	1. Particle Image Velocitymetry (PIV). 2. Localized Electrochemical Deposition (LECD). 3. Failure Nano-composite by FEM.

Lecturer 2001-2006	Department of Materials Engineering. College of Engineering University of Al-Mustanseriya, Baghdad, Iraq
Subject taught:	1. Principle of Engineering Design and Stress Analysis. 2. Mechanics of Materials. 3. Programming.
Teaching Assistant 1997-2001	Department of Mechanical Engineering University of Technology, Iraq
Subject taught:	Principle of Machine Design.
Academic Experience in Technical College of Baghdad and Molds Institute/Adjunct Lecturer	
Lecturer 2000-2001	Department of Molds Engineering. Technical Institute of Molds. Ministry of Industry.
Subject taught:	1. Engineering Statics and Dynamics. 2. Design of Plastic molds. 3. Design of Cold forming Dies.
Lecturer 2001-2002	Department of Welding Engineering. Technical College of Baghdad.
Subject taught:	1. Mechanics of Materials. 2. Fundamental of Engineering Drawing. 3. Principle of Weldments Design.
Lecturer 2002-2003	Department of Molds Engineering. Technical College of Baghdad.
Subject taught:	1. Application to the Theory of Plasticity in Manufacturing processes. 2. Design of Cold forming Molds. 3. Engineering Drawing.

Publications

1. W.Kh.Ahmed, M.K.Aldoory and F.E.Gharib, "Structural Behavior of Adhesively Bonded Steel Tube Structures Versus Their Welded Equivalent", Proceedings of the 4th Jordanian Civil Engineering Conference, JCEC 2006, Structural-Geotechnical Engineering and Construction Management, 10-13 April, Amman and the Dead Sea, Jordan, 2006.
2. W.Kh.Ahmed,S.A.Shakir,"The Influence of Nanoholes on the Interfacial Stresses in Discontinuous Nanofiber Composite", Proceedings of the International Conference on Bio-Nanotechnology: Future Prospects in the Emirates, Al Ain, UAE ICBN 2006,November 18-21 UAE, ISBN: 9948-02-135-5, pp.241-245, 2006.
3. W.Kh.Ahmed, C.D.Rudd, W.N.Al-Rifaie, "Using Composite Materials For Strengthening Thin Walled Steel Tubes", Proceedings of the International Conference on Bio- Nanotechnology, ICBN 2006, Al-Ain, ISBN: 9948-02-135-5, November 18-21, UAE, pp.251-257, 2006.
4. Wail N.Al-Rifaie, W.Kh.Ahmed '"Parametric Study on The Effect of The Fiber Reinforced Polymer (FRP) Pad on The Stress Intensity Factor of A Cracked Pipe", Engineering and Technology Journal, Vol.25(1),pp.9-24, 2007.
5. W.Kh.Ahmed,S.A.Hareb,Y.Haik, "The Behavior of Nano-Composites with Nano-Circular Holes -Finite Element Analysis", The Eighth Annual U.A.E. University Research Conference, April-2007.
6. W.Kh.Ahmed, F.Kh.Omar,Y.Haik,"The Effect of Nano-Circular Inclusion on the Interfacial Stresses of Nano-Composite, First Sharjah International Conference on Nanotechnology and Its Applications, Sharjah, UAE, pp.111, 10-12 April, 2007. Abstract Copyright:(c) 2007: American Institute of Physicsdoi:http://dx.doi.org/10.1063/1.2776685 , Bibliographic Code:2007AIPC..929...38A. (Elsevier-Scopus) AIP NASA

7. W.Kh.Ahmed, S.A.Shakir, W.N.Al-Rifaie, "Using Fiber Reinforced Polymer (FRP) for Restoring Damaged Pipe With Outer Circumferential Surface Crack", Proceedings of the 3rd IMS International Conference for Applications of Traditional and High Performance Materials in Harsh Environments, ISBN: 978-9948-427-10-0, School of Engineering American University of Sharjah, January 23 – 24, pp.117-120, 2008.
8. W.Kh.Ahmed, C.D.Rudd, W.N.Al-Rifaie, "The Flexural Behavior of Hybrid Steel-Composite Tubes", Proceedings of the 3rd IMS International Conference for Applications of Traditional and High Performance Materials in Harsh Environments, School of Engineering American University of Sharjah, ISBN: 978-9948-427-10-0, January 23 – 24, pp.377-383, 2008.
9. W.Kh.Ahmed, F.Kh.Omar, Y.Haik," Elucidating the Consequences of Nano-Inclusion Embedded in Nano-Composite", Knowledge Based Industries & Nanotechnology Conference, Doha, Qatar, February 11-12th Feb., pp.147, 2008 (Invitation).
10. W.Kh.Ahmed, Ahmed AlAwar," The Flexural Behaviour of Adhesively Bonded and Welded Corrugated Steel Sheets", The Ninth Annual U.A.E. University Research Conference, April-2008.
11. W.Kh.Ahmed, Ahmed AlAwar," Flexural Behavior of Adhesively Bonded Stiffened Panel in Comparison with Welded One", The 10th Annual U.A.E. University Research Conference, April-2009.
12. W.Kh.Ahmed, "Investigation the Effect of Nano-Inclusion Embedded in Nano-Composites", International Workshop on Advanced Materials (IWAM09),RAKCAM, Feb.2009.
13. W.Kh.Ahmed, Ahmed Al Awar ,"Mechanical Response of Steel Plate Strengthened by Adhesively Bonded Hollow Steel Tube", The 11th Annual U.A.E. University Research Conference, April-2010.
14. W.Ahmed, K.Harib, "MATLAB/SIMULINK to Solve Mathematical Models of Engineering Systems: Class Activity", ICERI2011, 4th International Conference of Education, Research and Innovation, Madrid, Spain, 14-16 November, 2011. ISBN: 978-84-615-3324-4. (Funded by UAEU)
15. Waleed Ahmed, Yarub Al-Douri, and Kubilay Aslantas, "The Failure of Nano-Composite due to Interfacial Stresses", Proceedings of the 3rd Intenational Conference of Nanotechnology ICN 2011, 28-30 November, UAEU, Al Ain, UAE, D3-S5, pp.147, UAE. (Funded by UAEU)
16. W.N.Al-Rifaie, O.M.Mahdi, W.K.Ahmed, "Nano-Ferrocement Construction", International Workshop on Advanced Materials (IWAM12), RAK Center for Advanced Materials (RAKCAM), RAK, UAE, 19- 21, Feb., 2012.
17. R.A. Al-Samarai W.K.Ahmed, H.K.R.Ahmad, Y.Al-Douri,"Tribological property of nanoparticles WS2 lubricants on aluminum-silicon alloy and carbon steels", International Workshop on Advanced Materials (IWAM12), RAK Center for Advanced Materials (RAKCAM), RAK, UAE, 19- 21, Feb., 2012.
18. W.K.Ahmed, Yarub Al-Douri, W.N.Al-Rifaie, "The Impact of the Nano-fiber's Misalignment on the Interfacial Stresses of the Nano-Composite", International Workshop on Advanced Materials (IWAM12), RAK Center for Advanced Materials (RAKCAM), RAK, UAE, 19- 21, Feb., 2012.
19. Waleed Khalil Ahmed, "Wind Turbine: Mathematical Model of Mechanical System", 2nd International Conference on Renewable Energy: Generation and Applications ICREGA'12, March 4-7, Al Ain, UAE, pp.46, 2012.
20. Waleed Khalil Ahmed, "MATLAB/ode45 for Differential Equations and Engineering Applications: Advantages and Disadvantages", Fourth International Conference on Mathematical Sciences, ICM2012, March 11-14,Al Ain, UAE, pp.35, 2012.
21. Waleed Khalil Ahmed, "Using MATLAB to solve Mathematical Models of Thermal Systems", 10th UAE Math 2012, American University of Sharjah, Sharjah, UAE, April 14, pp.65, 2012.
22. W. K. Ahmed, A-H. I. Mourad, "Using Fiber Reinforced Polymer to Restore Deteriorated Structural Members", International Journal of Material and Mechanical Engineering, 2012,vol.1,No.1,pp.001-007 .
23. Wail Nourildean Al-Rifaie, Waleed Khalil Ahmed, Omar Mohanad Mahdi, "Performance of Ferrocement Using NSCSC Mortar", NuRER 2012 – Proceedings of the 3rd International Conference on Nuclear & Renewable Energy Resources, İstanbul, TURKEY, 20-23 May 2012.

24. Waleed Ahmed, Yarub Al-Douri, and Kubilay Aslantas, “Finite Element Analysis of Cracked Nano-Fiber Reinforced Composite”, Proceedings of the 6th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2012), Vienna University of Technology, Vienna, Austria, ISBN: 978-3-9502481-9-7, pp.383, September 10-14, 2012.(Elsevier-Scopus)(Funded by UAEU)
25. Waleed K. Ahmed, Professor Wail N.Al-Rifaie, Professor Christopher Rudd, "Structural Assessment via FEA of Bonded Steel Structures using Fiber Reinforced Epoxy Adhesive”, International Journal of Material and Mechanical Engineering, Vol.1,No.4,,1-24,pp.061-065, 2012.
26. Waleed K. Ahmed, Wail N. Al Rifaie, Yarub Al-Douri, “The Failure of Reinforced Nano-composites under Flexural Load” , Proceedings of the 2nd Saudi International Nanotechnology Conference 2012 (2SINC), KACST, Riyadh, Saudi Arabia, pp.85, November 11 - 13, 2012.
27. Wail Nourildean Al-Rifaie1, Omar Mohanad Mahdi, Waleed Khalil Ahmed, “Nano-Polymercement”, Proceedings of the 2nd Saudi International Nanotechnology Conference 2012 (2SINC), KACST, Riyadh, Saudi Arabia, pp.153-156, November 11 - 13, 2012.
28. Waleed K. Ahmed, Wail N. Al Rifaie, “Investigating Interfacial Stresses of Reinforced Nano-composites Due to Different Load Conditions”, International Workshop on Advanced Materials (IWAM13), RAK Center for Advanced Materials (RAK CAM), RAK, UAE, 24- 26, Feb., 2013.
29. Waleed K. Ahmed, “The Influence of Debonding on The Mechanical Properties of Hybrid Nanocomposites”, Proceedings of the 4th International Conference on Metamaterials, Photonic Crystals and Plasmonics, META'13 in Sharjah, United Arab Emirates, March 18-22, 2013. ISBN: 978-2-9545460-0-1.(Funded by UAEU)
30. Waleed K. Ahmed, “The Impact of Intelaminar Defects on The Characteristics of Piezoelectric Transducers “, Proceedings of the the 2nd Advanced Electromagnetics Symposium, AES 2013, Sharjah, United Arab Emirates, March 18-22, 2013. ISBN: 978-2-9545460-1-8.(Funded by UAEU)
31. Waleed K. Ahmed, “Advantages and Disadvantages of Using MATLAB/ode45 for Solving Differential Equations in Engineering Applications”, International Journal of Engineering (IJE), Vol.7 (1), pp. 27-33, 2013.
32. Waleed K. Ahmed, “Mechanical Modeling of Wind Turbine Comparative Study”, International Journal of Renewable Energy Research (IJRER), Vol.3(1), pp.94-97.(Elsevier-Scopus)
33. Waleed K. Ahmed, Essam Z., E-Learning as a Stimulation Methodology to Undergraduate Engineering Students, International Journal of Emerging Technologies in Learning (iJET). Vol.8(3), pp.4-7. http://dx.doi.org/10.3991/ijet.v8i3.2550 (Elsevier-Scopus) (EBSCO)
34. Ahmed W.K, Aslantas K., Al-Doury Y. Failure of Pre-Cracked Nano-Composite. Journal of Nanostructured Polymers and Nanocomposites. Vol.9(3), pp. 59-66, 2013. http://www.jnpn.org/03,09,03.html
35. Ahmed W.K, Shakir S.A. The Impact of a Mismatch on the Interfacial Stresses in NanoComposite. The International Journal of Nanoelectronics and Materials. Accepted 23 April 2013. (In press).
36. Waleed K. Ahmed, Wail N. Al Rifaie, The Impact of Embedded Nanoinclusion in Nanofiber Reinforced Composite . Physical Review & Research International . Vol.3(4), pp.438-451. (Ebsco)
37. W.K. Ahmed, A-H.I. Mourad. Strengthening Of Misaligned Welded Pipes With Outer Circumferentially Crack Using FRP Bandage. Journal of Mechanical Engineering and Technology. Vol. 1 Iss. 2, pp. 66-73
38. Wail N. Al-Rifaie, Omar Mohanad Mahdi, Waleed Khalil Ahmed. Development of Nanocement Mortar as a Construction Material. Advanced Materials Research Vol.795, pp. 684-691, 2013. http://www.scientific.net/AMR.795.684
39. Waleed K. Ahmed, A-H. I. Mourad, Wail N. Al-Rifaie, Characterization Of Stiffened Circumferentially Cracked Pipe With Fiber Reinforced Polymer Composite Patch,2014, Vol. 5, No. 1, pp. 39-43, DOI: 10.5185/amlett.2013.7505 Advanced Materials Letters (Scopus)
40. Waleed K. Ahmed, A-H.I. Mourad, LEFM Based Approach to Evaluate the Impact of Debonding Problems in Rehabilitated Steel Members Using FRP Composites, IV ECCOMAS Thematic Conference on the Mechanical

Response of Composites, University of the Azores at Ponta Delgada, S. Miguel Island, Azores, Portugal.(Funded by UAEU)

41. Waleed K. Ahmed, Essam Z., Teaching Engineering Economy Using Internet, Embracing Mobile Learning Conference, Nov. 20-21 2013, Al Ain, UAE.
42. Waleed K. Ahmed, Investigating Impact of The Interfacial Debonding on The Mechanical Properties of NanoFiber Reinforced Composites, JOURNAL OF NANO- AND ELECTRONIC PHYSICS, Vol.5, N.4, pp. 04059-1 - 04059-5, 2013
43. Waleed K. Ahmed, The Role of Nanofiber/Matrix Interface Defects on The Failure of Nanocomposite Comparative Study, Nano Trends: A Journal of Nanotechnology and Its Applications, Vol. 15, No. 3, pp.63-71. ISSN: 0973-418X.
44. Al-Douri, Yarub; Reshak, Ali H.; Ahmed, Waleed K.; Ghazai, Alaa J. , Structural and optical investigations of In doped ZnO binary compound , Materials Express, Volume 4, Number 2, April 2014 , pp. 159-164(6). DOI: http://dx.doi.org/10.1166/mex.2014.1159
45. Waleed K Ahmed, Failure Analysis of Adhesively Bonded Wind Turbine Blade, Proceedings of the 3rd "International Conference on Renewable Energy: Generation and Applications" ICREGA'14, Al Ain, United Arab Emirates, March 2, 2014. (Funded by UAEU)
46. Wail N. Al-Rifaie, Waleed K. Ahmed, Latif E. Ibraheem, Hashim Y. Al-Samarraie, Thermal Performance of Ferrocement Green Building System, Proceedings of the 3rd "International Conference on Renewable Energy: Generation and Applications" ICREGA'14, Al Ain, United Arab Emirates, March 2, 2014.
47. Salah Bouktif, Waleed K. Ahmed, Monitoring Framework for Cost-Effective Energy Consumption in a Building, Proceedings of the 3rd "International Conference on Renewable Energy: Generation and Applications" ICREGA'14, Al Ain, United Arab Emirates, March 2, 2014.
48. Wail N Al-Rifaie, Waleed K Ahmed, Yarub K Al-Douri, Omar M Mahdi , Development of Nano Cement Mortar Composite , IMS/7 INTERNATIONAL CONFERENCE ON: ADVANCES IN ENGINEERING MATERIALS, American University of Sharjah, March 18-20, 2014 Sharjah, United Arab Emirates . ISBN: 978-9948-20-855-6
49. Waleed K. Ahmed, Hong Ten, 2D vs. 3D Iinvistigation of Fractured Particulate Reinforced Composites, IMS/7 INTERNATIONAL CONFERENCE ON: ADVANCES IN ENGINEERING MATERIALS, American University of Sharjah, March 18-20, 2014 Sharjah, United Arab Emirates . ISBN: 978-9948-20-855-6. (Funded by UAEU)
50. Wail Nourildeen Al Rifaie, Waleed Khalil Ahmed, Latif E. Ibraheem, Hashim Y. Al-Samarraie, The Use of Renewable Energy in Ferrocement Eco-Housing System, International Journal of Renewable Energy Research-IJRER, Vol. 4, No. 1, pp. 151-158, 2014.
51. M. El Amine. Monir, H. Baltache, G. Murtaza, R. Khenata, Waleed K. Ahmed, A. Bouhemadou, S. Bin Omran, T. Seddik, Spin-polarized structural, elastic, electronic and magnetic properties of half-metallic ferromagnetism in V-doped ZnSe, Journal of Magnetism and Magnetic Materials, Volume 374, 15 January 2015, Pages 50–60.

52. Wail N. Al-Rifaie, Waleed K. Ahmed, Omar M. Mahdi, Experimental Investigation of Nano-Polymercement Composite, Study of Civil Engineering and Architecture (SCEA) Volume 3, 2014, pp.29-35.