



Curriculum Vitae



1. Personal Details:

Name : Prof. Dr. Ali Mohammed Ali Alsamhan
Nationality: Saudi Arabia
Work Position: Professor at College of Engineering,
Industrial Engineering King Saud University.
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Personal Status: Married and father for three boys and two girls.
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2. Educations:

- 1.1 Professor at Industrial Engineering Department KSU since 12/2/2012
- 1.2 Associate Professor at Industrial Engineering Department KSU from 8/6/2006 to 11/2/2012.
- 1.3 Assistant Professor (PhD from Birmingham University UK. School of manufacturing and mechanical engineering) 1/3/1999. Thesis title "**The Development of Finite-Element Models and Re-meshing Techniques in The computer Simulation of Cold-Roll-Forming**", (Supervisors Dr P. Hartely, Dr I. Pillinger)
- 1.4 MSc, (King Saud University, Mech. Engineering Department-Riyadh) 18/4/1993. Thesis Title "**An Adaptive Control Strategy for Machine Tool Operations**", 1992, supervisors (Dr A El-Tamimi and Prof. Dr Adnan Nouh).
- 1.5 BSc (King Saud University, Mech. Engineering Department-Riyadh), 15/5/1986. BSc project Title "**Computer Aided Process Planning with Particular Emphasis on Computer Assisted Part Programming for Rotational Components**", 19, Apr, 1986. (Supervisor Dr Elsayed A Orady)

3. Specialty and Research Area:

3.1 Main research area : Manufacturing and Industrial Engineering.

3.2 Research Areas:

CAD/CAM and Manufacture Production line Design

Product design and Manufacturing Automation and Mechatronics.

Bio-mechanical Engineering.

Numerical modeling metal forming processes and Bio-Mechanical Engineering.

Welding and adhesive bonding technology.

4. Teaching Course:

4.1 Manufacturing Process 1(metal forming and metal forming processes), IE 351 and IE252.
(BSc. Student)

4.2 Manufacturing Automation using Programmable Logic Controller (PLC) , IE437/ IE337. (BSc. Student)

4.3 Lab. Supervisor for Two courses for undergraduate students (BSc. Student)

4.4 BSc project supervisor in area: Welding, Numerical analysis, Machine Automation, CAD/CAM.

5. Books:

5.1 A Book on "Manufacturing engineering processes", By Prof. Dr Ali M Alsamhan and Prof. Dr S.M. Darwish, for the Research center of KSU, Grant 50/426. 2006.

5.2 A Book on "Manufacturing Automation using PLCs", By Prod Dr Ali Alsamhan and Prof Dr S.M. Darwish, for the Research center of KSU, Grant 16/424, 2007.

6. Activities in Industrial Engineering Department:

- Chairman Industrial engineering Department since 2012-2014.
- Student registration supervisor for five year 2000-2005.
- Supervisor and director of laboratory development counsel for IE department.
- Automation Laboratory supervisor and director.
- Member of Industrial Engineering council.
- Member of College of Engineering council.

7. Activities outside the University

- Consultant for Alsamhan Factory for Saudi Pump Co., Ltd., (2nd Industrial Area, Riyadh-Saudi Arabia for more than 15 years.
- RD for Alsamhan Factory for Saudi Pump Co., Ltd., (2nd Industrial Area, Riyadh-Saudi Arabia for more than 15 years.
- Product design and development for Alsamhan Factory for Saudi Pump Co., Ltd. More than 25 product sales in Saudi Arabia and Arab counties.

8. BSc project supervisors for industrial Engineering Projects (some of these projects)

- [8.1] Mohammed Badah Al-Qahtani , “Design of Dissimilar Joint” Year 2001.
- [8.2] S. Alhusayni, M. Al Mazroua, Y. Al Qtham, “Rapid Casting Prototype Modeling Case Study”, Year 2011.
- [8.3] H. Alaskar, R. Alasker, A. Alhomayin.”Retrofitting Vertical CNC milling Machine”, Year 2011.
- [8.4] K. Al-Qtalbi , “Analysis of Riveted Joints, Year 2002.
- [8.5] M. T. Hafiz, “Predicting Stress Concentration at Spot Welding Joints using FE Methods”, Year 2000.

9. Publications

- [9.1] A. Alsamhan, P. Hartely, I. Pillinger, “The computer simulation of cold-roll-forming using FE methods and applied real time re-meshing techniques”, J. Material Processing Technology, 142, 2003, 102-111.
- [9.2] A. Alsamhan, I. Pillinger, P. Hartely, “The development of real time re-meshing technique for simulating cold-roll-forming using FE methods, J Material Processing Technology, 147, 2004, 1-9.
- [9.3] S. M. Darwish, , Al-Samhan “ Parametric study on cemented hip joint), ACE-X2008, 2nd International conference on Advanced Computational Engineering, **2008**, Spain.
- [9.4] S. M. Darwish, , Al-Samhan, "The effect of cement stiffness and tibia tray material on the life span of artificial knee", Int. J. Of Adhesion & Adhesives, vol. 28, pp 120-125, 2008
- [9.5] S. M. Darwish, Al-Samhan, “Rationale choice of polyethylene layer thickness in artificial knee replacement”, Proceedings of the Institution of Mechanical Engineering, Part L, Journal of Machine Design and Applications (In press) ∩
- [9.6] S. M. Darwish, Al-Samhan, "The signature of cement stiffness and tibia tray material on the life span of artificial knee", UMTIK Conference, Turkey, vol.2, pp 681-690, 2006.
- [9.7] Al-Samhan, S. M. Darwish, H. Al-Khawashki, M.M. Zamzam, "Optimization of polyethylene layer thickness of artificial knee", UMTIK Conference, Turkey, vol.2, pp 703-712, 2006.
- [9.8] Al-Samhan, S. M. Darwish, "Factors influencing thermo-mechanical stresses developed in bonded tools", Int. J. Of Adhesion & Adhesives, vol. 25,pp 379- 388, 2005.
- [9.9] E. Al-Bahkli, A. Al-Samhan, S.M. Darwish, "Thermal stresses of riveted and riveted-bonded joints", 6th Int. Congress on Thermal Stresses, Vienna University of Technology, Austria, pp 353-356, 2005
- [9.10] S.M. Darwish and A. Al-Samhan, "Thermal stresses developed in weld-bonded joints", J. of Materials Processing Technology, vol. 153-154, pp 971-977, 2004.
- [9.11] S.M. Darwish and A. Al-Samhan, "Thermal stresses developed in weld-bonded joints", Proceedings of Advances in Materials and Processing Technologies Conf., U.K., pp 994-998., 2003.
- [9.12] A. Al-Samhan and S.M. Darwish," Finite element modeling of weld-bonded joints" J. of Materials Processing Technology, vol. 142, pp 587-598, 2003.
- [9.13] S.M. Darwish and A. Al-Samhan Peel and shear strength of spot welded and weld-bonded dissimilar thickness joints J. of Materials Processing Technology, vol. 147, pp 52-59, 2004.

- [9.14] S.M. Darwish and A. Al-Samhan" Design rationale of weld-bonded joints" Int. J. Of Adhesion & Adhesives, U. K., 2003.
- [9.15] S.M. Darwish and A. Al-Samhan," Strength prediction of weld-bonded joints", Int. J. Of Adhesion & Adhesives, Vol. 23,pp 23-28, 2003.
- [9.16] S.M. Darwish, A. M. Al-Samhan, Material Science and Engineering Technology, Optimization of Artificial Hip Joint Parameters, Vol 40, Issue 3, 2009, pp218-223
- [9.17] S.M. Darwish, A. M. Al-Samhan, The effect of cement stiffness and tibia tray material on the stresses developed in artificial knee, International Journal of Adhesion & Adhesives , vol 28, 2008,pp 120-125.
- [9.18] S.M. Darwish and A. M. Alsamhan, Strength of Double Containment Joints Having Right Angle Supports, The Journal of Adhesion, Vol 86, 2010, pp586-600.
- [9.19] Ali M Al-Samhan, Analysis of T-Peel Weld-bonded Joint with Single Overlap Support, Advanced Material Research Journal, Vol 194-196, 2011, pp 2276-2283.
- [9.20] Ali M Al-Samhan, Strength Prediction of Bonded T-Peel Joint with Single Overlap Support, Advanced Material Research Journal, Vol 236-238, 2011, pp 781-788.
- [9.21] Ali M Al-Samhan, Experimental and Numerical Study of Double Containment Joint having Circular Cross-section Support, Advanced Material Research Journal, Vol 287-290, 2011, pp 2360-2363.
- [9.22] Ali M Al-Samhan, Thermal-stresses in carbide-tip bonded face milling cutters, Journal of King Saud University – Engineering Sciences, 24, 2, 2012, pp 85-94.
- [9.23] A. Alsamhan, M. M. ElSinger, M. M. Zamzam, and S. M. Darwish, Engineering Judgment of Children Bone Fracture, International Journal of Biomaterials Volume 2011, Article ID 737054, 7 pages, 2011.
- [9.24] S.M. Darwish, A M Alsamhan, Adhesively bonded composite structures having different configurations, 17th International Conference on composites or Nano Engineering, ICCE-17, 26 July to 1st Aug 2009, Honolulu, Hawaii, USA.
- [9.25] Ali Alsamhan, Rational analysis of human artificial knee replacements, J of King Saud University, Engineering Sciences, 25, 1, (2012) pp 49-54.
- [9.26] W. A. M. Qaid, A. M . Alsamhan, S. M. Darwish,"Optimization of T-peel Support Properties (Material and Thickness), 2nd International Conf. on Structure Adhesive Bonding , College of Engineering, University of Porto, Portugal, July 4-5, 2013.
- [9.27] Ali M Alsamhan, Saied M Darwish, Numerical Analysis of Artificial Knee Joint, The 2014 International Conference on Industry, Engineering, and Management System IEMS, Cocoa Beach, March 24-26 2014.

10.MSc thesis :

“Experimental and Numerical Analysis of Peel Bonded Joint Strength Merged with Nano particles”, by Wadea Ameen Mohammed Qaid, MSc. Industrial Engineering, College of Engineering, Aug 2014, Supervisor Dr Ali M Alsamhan and Dr S. M. Darwish.

11. Patient

- “Wave energy convertor using oscillating pendulums” Patent No US9,151,268,B1, Oct, 6, 2015, Inventors ;Hesham Rabie Fouli, Ali M Al-Samhan, Shkelzen Hykaj, Ermal Mullalli.