

# CURRICULUM VITAE – C.V.

**Name** : *Dr. Hashem Saleem Alkhalidi* –Assistant Professor  
**Nationality** : Jordanian  
**Date of Birth** : May 29, 1972  
**Place of Birth** : Beirut - Lebanon  
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## Education

- Ph.D. Mechanical Engineering, **2003-2007 (Applied Mechanics)**  
Institute of Engineering and Computational Mechanics  
University of Stuttgart, Stuttgart-Germany  
Research title: “Contact Investigations of Granular Mechanical Media in a Tumbling Sorting Machine”  
Rank (GPA): *excellent*.  
Advisor: Prof. Dr.-Ing. Peter Eberhard
- M.sc. Mechanical Engineering, **1995-1997 (Applied Mechanics)**  
Mechanical Engineering Department- Applied Mechanics  
University of Jordan, Amman-Jordan  
Research title: “Nonlinear Buckling Analysis of Columns on Elastic Foundation”  
Rank (GPA): *excellent*.  
Advisor: Prof. Dr. Mazen Alqaisi
- B.sc. Mechanical Engineering, **1989-1994 (Applied Mechanics)**  
Mechanical Engineering Department- Applied Mechanics  
University of Jordan, Amman-Jordan  
Research title: “Large Deflections of Cantilever Beams Subjected to Concentrated End Loads”  
Rank (GPA): *very good*.  
Advisor: Prof. Dr. Mazen Alqaisi
- General secondary school, **1985-1988**  
Alhusun Secondary School, Irbid, Jordan  
Rank (GPA): *excellent*.

## Field of Research

- Solid mechanics, large deflection and nonlinear buckling.
- Solving nonlinear problems using power-series method.
- Dental implant investigations using finite element analysis.
- Molecular and granular contact dynamics.
- Parallel computations of granular media codes.
- Tumbler screening technology and particle segregation.

## Publications

1. Abuzeid, O.; Al-Rabadi, A.; Alkhalidi H.: Recent Advancements in Fractal Geometric-Based Nonlinear Time Series Solutions to the Micro Quasi-Static Thermo-Viscoelastic Creep for Rough Surfaces in Contact, *Mathematical Problems in Engineering*, 2010, (Sent for publication).

2. Abuzeid, O.; Alkhalidi H.; Eberhard, P.: A Thermal Creep Model for the Contact of Nominally Flat Surfaces: Jeffreys Linear Viscoelastic Model, *Journal Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, 2010, (Sent for publication).
3. Al-Salaymeh, A.; Al-Zogoul, M.; Alkhalidi, H.; Habali, S.: Wind-Energy Augmentation Using the Delta-Wing Vortex, *Dirasat*, Vol. 37, No 1, pp. 13-26, 2010.
4. Abuzeid, O.; Al-Rabadi, A.; Alkhalidi H.: Fractal Geometry-Based Hypergeometric Time Series Solution to the Hereditary Thermal Creep Model for the Contact of Rough Surfaces Using the Kelvin-Voigt Medium, *Mathematical Problems in Engineering*, online publication, Article ID 652306, 22 pages doi:10.1155/2010/652306, [<http://www.hindawi.com/journals/mpe/2010/652306.html>], 2010.
5. Muslih, I.; Mansour, M.; Alkhalidi, H.: Mechanical Stress Investigations of a New Dental Implant Design Using Finite Element Analysis, *Proceedings in Interdisciplinary Conference of Chemical Mechanical and Material Engineering (ICCMME)*, Melbourne, December 7-20, 2009, Australian Institute of High Energetic Materials (Eds.), pp. 434-439, Australia, 2009.
6. Alkhalidi, H.; Ergenzinger, Ch.; Fleißner F.; Eberhard, P.: Comparison between Two Different Mesh Descriptions Used for Simulations of Sieving Processes, *Granular Matter*, Vol. 10, No. 3, pp. 223-229, 2008. [<http://dx.doi.org/10.1007/s10035-008-0084-4>].
7. Alkhalidi, H.; Eberhard, P.: Particle Screening Phenomena in an Oblique Multi-Level Tumbling Reservoir - A Numerical Study Using Discrete Element Simulation, *Granular Matter*, Vol. 9, No 6, pp. 415-429, 2007.
8. Alkhalidi, H.; Eberhard, P.: Segregation of Particulate Material Using the Discrete Element Method, *Proceedings in Symposium on Computational Contact Mechanics (IUTAM Symposium)*, Hannover, November 5-9, 2006, P. Wriggers & U. Nackenhorst (Eds.), pp. 341-355, Springer, Netherlands, 2007.
9. Alkhalidi, H.: Contact Investigations of Granular Mechanical Media in a Tumbling Sorting Machine, *Doctor thesis, ISBN 978-3-8322-6290-7*. University of Stuttgart, Institute of Engineering and Computational Mechanics, Shaker-Verlag, 2007.
10. Eberhard, P.; Alkhalidi, H.: Efficient Computation of Colliding Particles in a Vertical Tumbling Sorting Machine. Recent Advances in Computational Mechanics and Simulations, *Proceedings Second International Congress on Computational Mechanics and Simulation (ICCMS-06)*, Guwahati, India, December 8-10, 2006, S. Dvivedy, D. Maity (Eds.), Vol. 1, pp. 81-87, I.K. Publishing House, New Delhi, 2006.
11. Alkhalidi, H.; Eberhard, P.: Computation of Screening Phenomena in a Vertical Tumbling Cylinder, *Proceedings in Applied Mathematics and Mechanics (PAMM)*, Berlin, Germany, Vol. 6, No. 1, pp. 83-84, 2006.
12. Alkhalidi, H.: Nonlinear Buckling Analysis of Columns on Elastic Foundation, *Master thesis*. University of Jordan, Mechanical Engineering Department, 1997.
13. Alkhalidi, H.: Large Deflections of Cantilever Beams Subjected to Concentrated End Loads, *Bachelor graduation project*. University of Jordan, Mechanical Engineering Department, 1994.

## Talks

1. Alkhalidi, H.: Granular Contact Dynamic Simulations in a Tumbling Screening Process, Status Seminar, Institute of Engineering and Computational Mechanics, Rossberghaus, Reutlingen, Germany (May 10, 2007).
2. Alkhalidi, H.: Segregation of Particulate Material Using the Discrete Element Method, Symposium on Computational Contact Mechanics (IUTAM Conference), Hannover, Germany (November 8, 2006).
3. Alkhalidi, H.: A Study of the Effect of Operating Variables on the Efficiency of a Tumbling Sorting Machine, Dynamiktag- Institute of Engineering and Computational Mechanics, Stuttgart, Germany (September 29, 2006).

4. Alkhalidi, H.: Computation of Screening Phenomena in a Vertical Tumbling Cylinder, Gesellschaft für Angewandte Mathematik und Mechanik (GAMM Conference), Berlin, Germany (March 30, 2006).
5. Alkhalidi, H.: Contact Dynamic Simulation of Granular Media in the Tumbler Screening Machine, Status Seminar, Institute of Engineering and Computational Mechanics, Rossberghaus, Reutlingen, Germany (June 8, 2005).
6. Alkhalidi, H.: Contact Investigations of granular Mechanical Media on High Performance Computers, Status Seminar, Institute of Engineering and Computational Mechanics, Burg Teck, Owen, Germany (April 7, 2004).
7. Alkhalidi, H.: Seminar of Applied Mechanics, University of Stuttgart, Non-linear Buckling of Columns on Elastic Foundation, Stuttgart, Germany (June 3, 2003).

## Experience

- Assistant professor, Mechanical Engineering Department, University of Jordan, Amman, Jordan, (9/2009 – currently).
- Assistant professor, Mechanical and Industrial Engineering Department, Applied Science Private University, Amman, Jordan, (9/2007 – 9/2009).
- Graduate teaching assistant, Institute of Engineering and Computational Mechanics, University of Stuttgart, Stuttgart, Germany, (4/2003 – 7/2007).
- German language course, interDaF e.V. am Herder-Institut der Universität Leipzig, Leipzig, Germany, (10/2002 – 3/2003).
- Full-time lecturer, Mechanical Engineering Department, University of Jordan, Amman, Jordan, (9/1997 – 9/ 2002).
- Teaching assistant, Mechanical Engineering Department, University of Jordan, Amman, Jordan, (9/1994 – 4/ 1997).
- Field training engineer, Queen Alia International Airport, Royal Jordanian, Amman, Jordan, (6/1993 – 8/1993).

## Teaching

- *Teaching assistant (M.Sc)*, University of Jordan, Amman-Jordan (9/1994 – 4/1997):

- Fracture Mechanics.
- Dynamics and Strength of Materials.
- Engineering Drawing and Descriptive Geometry.
- Machine Drawing and Computer Aided Drafting (AutoCAD).

- *Lecturer*, University of Jordan, Amman-Jordan (9/1997 – 9/ 2002):

- Engineering Mechanics- Statics and Dynamics.
- Structural Mechanics and Strength of Materials.
- Mechanical Vibration.
- Mechanical Measurements.
- Engineering Drawing and Descriptive Geometry.
- Machine Drawing and Computer Aided Drafting (AutoCAD).

- *Teaching assistant (Ph.D)*, University of Stuttgart, Stuttgart-Germany (4/2003– 7/2007):

- Technische Mechanik I: Statics and Strength of Materials.
- Technische Mechanik II: Dynamics and Mechanical Vibration.
- Technische Mechanik III: Solid Mechanics, Design and Finite Element Methods.

- *Assistant professor*, Applied Science Private University, Amman, Jordan, (9/2007– 9/2009):

- Engineering Mechanics- Dynamics.
- Elementary Strength of Materials.

- Advanced Strength of Materials.
- Mechanical Vibration.
- Advanced Engineering Mathematics.
- Engineering Drawing.
- Computer Aided Drafting.
- Strength of Materials Lab.

- *Assistant professor*, University of Jordan, Amman, Jordan, (9/2009– currently):

- Engineering Mechanics- Statics.
- Engineering Mechanics- Dynamics.
- Strength of Materials.
- Advanced Strength of Materials.
- Computer Aided Design (CAD).
- Finite Element Analysis (FEM).
- Engineering Drawing and Descriptive Geometry (EDDG).

## References

1. Prof. Dr.-Ing. Prof. E.h. Peter Eberhard  
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70569 Stuttgart, Germany  
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