

CV

NAME: Ibrahim Mousa Abu-Alshaikh

Date of Birth: 6 August 1966

LANGUAGES: Arabic, English and Turkish

E-MAIL ADDRESS: i.abualshaikh@ju.edu.jo & iabualshaikh@yahoo.com

ACADEMIC RANK: Associated Professor

SPECIALIZATION: Engineering Sciences “Applied Mechanics”

Grands & Memberships

Member: Jordan Engineers Association

Grand: 5000 \$ from ASAI, PhD program.

RESEARCH INTEREST

1. One and two-dimensional transient dynamic response (wave propagation) in elastic, viscoelastic, functionally graded and composite materials.
2. Mechanical Vibrations (Vibration of beams and bridges due to a moving load or force).
3. Fractional differential equations and their application in viscoelastic material, biomechanics and fluid mechanics.
4. Application of Numerical Analysis and Finite Element Method in Mechanics (MAPLE and ANSYS program).
5. Mathematical Modeling in Engineering.

EDUCATION

1. **Bachelor:** Engineering Sciences - Applied Mechanics, Middle East Technical University Ankara, Turkey, 1990.
2. **Master:** Engineering Sciences - Applied Mechanics- Transient Shear Wave Propagation in Viscoelastic Layered Media, Middle East Technical University Ankara, Turkey, 1992.
3. **PhD:** Engineering Sciences -Applied Mechanics- Two-Dimensional Transient Dynamic Response of Layered Media, Middle East Technical University Ankara, Turkey, 2000.

EMPLOYMENT HISTORY

- 1.** Assoc. Prof. Dr., The University of Jordan, Mechanical Engineering Department, Amman Jordan: From September 2013- now.
- 2.** Assoc. Prof. Dr., Applied Science University, Chairman of the department of Mech. and Ind. Engineering, Amman Jordan: From October 2009- September 2013.
- 3.** Assist. Prof. Dr., Applied Science University, Mechanical and Industrial Engineering Department, Amman Jordan: From October 2006- 2009
- 4.** Assist. Prof. Dr., Fatih University, Istanbul, Turkey: From, October 2001 To October 2006.
- 5.** Lecturer Dr, Middle East Technical University (METU), Ankara, Turkey: From, December 2000 To October, 2001.
- 6.** Teaching Assistant, METU, Ankara, Turkey: From, January 1997 To July 2000.
- 7.** Lecturer, High Institute of Technology, Sabha & Musrata- Libya, From September, 1992 To August, 1996.

UNIVERSITY TEACHING

- 1.** Engineering Mechanics (Statics and Dynamics).
- 2.** Finite Element Method with the aid of ANSYS.
- 3.** Mechanical Vibration
- 4.** Numerical Analysis for Engineers with the aid of MAPLE.
- 5.** Elasticity & Plasticity theory
- 6.** Solid Mechanics.
- 7.** Engineering Drawing (Hand Drawing)
- 8.** Advanced Engineering Mathematics I & II.
- 9.** Numerical Solution of ODE and PDE for Engineers with the aid of MAPLE.
- 10.** Special Functions in Engineering Applications.
- 11.** Fourier-Series and its Applications.
- 12.** Strength of Materials and its Lab.
- 13.** Mechanical Vibrations and its Lab.

JORNAL ARTICLES

1. R. Abu-Mallouh, I. Abu-Alshaikh, H. S. Zibdeh and Khalid Ramadan "Response of Fractionally Damped Beams with General Boundary Conditions Subjected to Moving Loads" **Shock and Vibration**, Vol. 19 Issue: 3, 333-347 (2012)
DOI: 10.3233/SAV-2010-0634.
2. H. Zibdah and I. Abu-Alshaikh, 2008 "Vibration Response of a Beam with different Appendages Subjected to a Moving System" **International Journal of Vehicle Noise and Vibration**, 4 (2008), 93-106.
3. A. Aslanov and I. Abu-Alshaikh, 2008 "Further Development to the Decomposition method for Solving Singular initial-value Problem" **Mathematical and Computer Modelling**, 43 (2008), 700-711.
4. Abu-Alshaikh I; Kokluce, B "One-dimensional transient dynamic response in functionally graded layered media : JOURNAL OF ENGINEERING MATHEMATICS Volume: 54 Issue: 1 Pages: 17-30 DOI: 10.1007/s10665-005-7718-x Published: JAN 2006
5. I. Abu-Alshaikh., D. Turhan and Y Mengi, 2006 "Two-Dimensional Transient Dynamic Response of Orthotropic Layered Media", **Meccanica**, 41, 639-652.
6. Ibrahim Abu-Alshaikh, Ali Sahin, 2006 "Two-point iterative methods for solving nonlinear equations", **Applied Mathematics and Computations**, 182, 871-878.
7. Bülent KÖKLÜCE, İbrahim ABU-ALSHAIKH, Tuğba YILDIZ, 2005 "Derecelendirilmiş Tabakasal Malzemelerde Bir-Boyutlu Dalga Denkleminin", **SIGMA: Journal of Science and Engineering**, Yildiz Technical University, (Turkish language), 4, 31-40.
8. I. Abu-Alshaikh., D. Turhan and Y Mengi, 2002 " Transient Waves in Viscoelastic Cylindrical Layered media" **European Journal of Mechanics Part A: Solid**, 21, 811-830.
9. I. Abu-Alshaikh., D. Turhan and Y Mengi, 2001 " Two-dimensional Transient Wave Propagation in Viscoelastic layered media" **Journal of Sound and Vibration**, 244 (5), 837-858 .
10. I. Abu-Alshaikh., D. Turhan and Y Mengi, 2001 " Propagation of Transient Out-of-Plane Shear Waves in Viscoelastic Layered Media" **International Journal of Mechanical Sciences**, 43 (12), 2911-2928.

Papers and Presentations Published at Conferences

1. Abu-alshaikh, Anas n. Al-rabadi, Hashem s. Alkhalidi "dynamic response of a beam with absorber exposed to a running force: fractional calculus approach" ; ASME 2012 international mechanical engineering congress & exposition November 9-15, 2012, Houston, Texas, USA
2. Hashem s. Alkhalidi, Abu-alshaikh, Anas n. Al-rabadi "vibration of a beam-oscillator system subjected to a moving vehicle: fractional derivative approach "; ASME 2012 international mechanical engineering congress & exposition November 9-15, 2012, Houston, Texas, USA
3. N. Beithou M. Abuhilal and I Abu-Alshaikh "Thermal Analysis of Discrete Water Supply in Domestic Hot Water Storage Tank" 7th JJMIE pp 29-32, 2010.
4. R. Abu-Mallouh, I. Abu-Alshaikh, "Dynamic Response of Fractionally Damped Beams with General Boundary Conditions Subjected to a harmonic Load", **14th International Conference on Applied Mechanical Engineering 25-27/ May/2010.**
5. Ibrahim Abu-Alshaikh & Nabil Beithou, 2007 "A common Formulation of Axisymmetric Thermal and Mechanical Stresses in Functionally Graded Cylinders and Spheres " **Proceeding the Third International Conference on Thermal Engineering**, May 21-23, Amman Jordan pp. 489-494.
6. Ibrahim Abu-Alshaikh, 2006 "One dimensional wave propagation in functionally graded cylindrical layered media", **Mathematical methods in Engineering**, Ankara-Turkey, Apr. 2006, Tas, K; Tenreiro Machado; Baleanu, D. (Eds.),2007 X, 470p., Hardcover, Springer; ISBN: 978-1-4020-5677-2.
7. Ibrahim Abu-Alshaikh, 2005 "A new iterative method for solving non-linear equations", **The Third Word Enformatika Conference**, Istanbul Turkey, Apr. 2005 Enformatika V 5, 5, 190-193.
8. Dogan Turhan*, Yalcin Mengi* and Ibrahim Abu-Alshaikh, 2004" TWO-DIMENSIONAL TRANSIENT WAVE PROPAGATION IN MULTILAYERED MEDIA " **Computational Solid and Structural Mechanics**", Finland during the period July 24-28.
9. I. Abu-Alshaikh. And Mehmet Koxsel, 2004 "One-dimensional Transient Dynamic Response in Functionally gradient spherical multilayered Media" **Dynamical International Conference**: - July 05 - 10, 2004, Antalya – Turkey.
10. I. Abu-Alshaikh., D. Turhan and Y Mengi, 2003 " Two-dimensional wave propagation in orthotropic layered media " **Fourth International Symposium on ACOUSTICS, NOISE, and VIBRATIONS** July 14-17, 2003, Graz –Austria.
11. I. Abu-Alshaikh., D. Turhan and Y Mengi, 2002 " Two-Dimensional Transient Wave Propagation in Cylindrical Viscoelastic Layered Media" **WCCM V**, Fifth Word Congress on, Computational Mechanics, July 7-12, 2002, Vienna, Austria. Eds.: H.A. Mang, F.G. Rammerstorfer, J. Eberhardsteiner.

12. G Birlik and I. Abu-Alshaikh, 2002 " Simple Biodynamic Models for Vehicle Drivers" **WCCM V**, Fifth Word Congress on, Computational Mechanics, July 7-12, Vienna, Austria. Eds.: H.A. Mang, F.G. Rammerstorfer, J. Eberhardsteiner.
13. I. Abu-Alshaikh., D. Turhan and Y Mengi, 2001 "Viskoelastik Silindrik Tabakasal Ortamlarda İki-Boyutlu Geçici Dalga Yayılışı". (Written in Turkish language) **XII ULUSAL Mekanik Kongresi**, Turkey, 9 Eylül University, Konya.
14. I. Abu-Alshaikh, D. Turhan and Y Mengi, 2001 " Tow-Dimensional Transient Shear Wave Propagation in Viscoelastic Cylindrical Layered Media" **Computational Methods and Experimental Measurements X**, Editors: Y. Villacampa Esteve, G. M. Carlomagono & C. A. Brebbia , Spain, June 2001: WITPRESS Southampton, Boston 515-524.
15. I. Abu-Alshaikh, D. Turhan , 1993 " Transient Wave Propagation in Periodically Layered Media" **Photonic Band Gaps & Localization**, Edited by C.M. Soukoulis Place Date: New York, Publishiy Company Page numbers: 479-485.
16. I. Abu-Alshaikh, D. Turhan 1993 "Transient Wave Propagation in Viscoelastic Layered Media" **Structural Dynamics**, Edited by (T.Moan, P.G. Bergan....), Balkema, Rotterdam, ISBN 9054103361, Page numbers: 351-357.

COMPUTER USE

Name of the software	Ability	Nature of the use
ANSYA , Finite Element Program	Excellent	Research, Projects, Teaching
MAPLE Mathematics Program	Excellent	Research, Projects, Teaching
FORTTRAN	Excellent	Research
Grapher , 2D and 3D	Excellent	Research, Projects
Word, Excel and Power Point	Excellent	Research, Projects
Mathcad, Mathematica and MATLAB	Good	Research,
Visual Basic ,	Good	Projects

TEACHING PHILOSOPHY

1. Treating all students with absolute equality, regardless of age, gender, nationality, or intellectual ability.
2. Making it clear that I am always available on request, and loving my job and my students. Thus, they feel this and ask me for help in their other subjects! , since they have a sixth sense for it.
3. I make it my business to try to understand the student's point of view however before attempting to give them my own. This means that when I do teach I can choose a conceptual path that leads from the student's current understanding to a broader or more conventional one.
4. I try to set a good professional example in written solutions and in conversation, by always referring everything back to the standards of the engineering industry, where a single error could lead to tremendous expense or even loss of life.
5. Putting a high priority on grading assignments quickly and providing lots of written feedback so the students can learn from their mistakes until they can demonstrate acceptable performance.
6. After giving the grades to the students, I am applying a face-to-face regarding-policy to remove all mystery from the grading process and get feedback on whether mistakes are due to misunderstanding, miscommunication, or inattention to details.

NAMES & ADDRESSES OF FIVE REFERENCES

1. **Name Position**, Prof. Dr. Doğan Turhan

Present Address, Department of Engineering Sciences METU, Ankara, 06531 Turkey

Phone, 312-2102388 , **Fax**, 312-2101269, **E-mail**: turhan@metu.edu.tr

2. **Name Position**, Assoc. Prof. Dr. Ali Yurtsever.

Present Address, Fatih University, İstanbul, 34500, Turkey

Phone, 212-8890810- Ext: 2010 **Fax**, 212-8890912. **E-mail**: yurtsever@fatih.edu.tr

3. **Name Position**, Prof. Dr. Salah Abdullah

Present Address, Applied Sciences University, Amman 11391, Jordan,

Department of Mechanical and Industrial Engineering, salahabdalah@asu.edu.jo

4. Name Position, Prof. Dr. Hazem Zibdeh

Present Address, Department of Mechanical Engineering
Jordan University of Science and Technology, Irbid, Jordan.

E-mail: hazemz@batelco.jo

5. Name Position, Dr. Iyad Mahmood Muslih Al-Sartawi

Present Address, Applied Sciences University, Amman 11391, Jordan,
Department of Mechanical and Industrial Engineering,

E-mail: iyad@iyadmuslih.com

I, the undersigned, testify that all information and details in this C.V. are true and correct. I will also present all supporting documents upon request.

Associated Prof. Dr. Ibrahim Abu-Alshaikh

Signature:

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