

CURRICULUM VITAE

NAME

GHAZI A. F. R. ABU-FARSAKH
Date of Birth: 13/4/1956



ADDRESS

Civil Engineering Department
Jordan University of Science and Technology (JUST), Irbid- Jordan
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EDUCATION

- Ph.D., London University , Queen Mary College, London 10/1979-2/1984.
"Title of thesis: "Analytical and Experimental Study of Buckling of Composite Shells".
- B.Sc., Ain Shams University , Cairo, 1973-1978, English as language of Instruction. Rank: First in Structures.
- Salah Al-Deen Secondary School, Kuwait, 1973, Arabic as Language of Instruction, Rank :Seventh, 91.8% .

TEACHING EXPERIENCE

Academic Ranks

- Assistant Professor (B), Yarmouk University , (1984-1986).
- Assistant Professor (B), Jordan University of Science & Technology, (1986 - 1989).
- Assistant Professor (A), Jordan University of Science & Technology (1989 - 1990).
- Associate Professor (B), Jordan University of Science & Technology (1990- 1993).
- Associate Professor (B), Al-ISRA University, Amman, sabbatical Leave (1993 - 1994).
- Associate Professor (A), Jordan University of Science and Technology (1994 -1998).
- Professor, Jordan University, Amman, sabbatical leave (1997 – 1998).
- Professor, Jordan University of Science and Technology (1998 – working). Date of Promotion to f Professorship Rank: 11/1/1998.
- Professor, Al-Isra University, Amman, sabbatical leave (2006 –2007).
- Professor, Jerash University, Amman, sabbatical leave (2011 –2012).

Administrative Positions

- Chairman of Civil Engineering Department (Sept. 1992 - Sept. 1993), Jordan University of Science and Technology (JUST).
- Chairman of Civil and Architecture Engineering Department , AI-ISRA University, Amman , Jordan , (Sabbatical year: 1993 -1994).
- Dean of Engineering Faculty, Jerash University, Jerash, Jordan (Sabbatical year : Sept. 2011- Sept. 2012)
- Acting President of Jerash University for one week during sabbatical leave (2012).

Courses

The following courses are taught:

1. Undergraduate Courses (JUST)

- Basic Programming Language.
- Engineering Drawing
- Statics
- Strength of Materials
- Structural Analysis I
- Structural Analysis II
- Structural Steel Design (using AISC-Specifications)
- Matrix Analysis of Structures
- Graduation Project 1 and 2 (Structures)

2. Undergraduate Courses (AI-ISRA UNIV.)

- Statics
- Strength of Materials
- Structure I
- Structure II
- Applied Structures II
- Structural Steel Design

3. Undergraduate Courses (JORDAN UNIV.)

- Statics
- Strength of Materials
- Structural Analysis-I
- Structurl Steel Design

4. Undergraduate Courses (JERASH UNIV.)

- Strength of Materials
- Structural Analysis-I
- Structurl Steel Design

5. Master Courses (JUST)

- Advanced Structural Mechanics

- Stability of Structures
- Special Topics (Mechanics of Composite Materials)
- Advanced Design of Steel Structures
- Supervising Master Thesis

6. *Master Courses (JORDAN UNIV.)*

- Advanced Structural Analysis
- Advanced Mechanics of Materials
- Plastic Design of Steel Structures

Examination Committees

- Member of several examination committees for Master and Ph. D. thesis at Jordan University of Science and Technology and Jordan University.
- Member of several examination committees for undergraduate projects.

RESEARCH INTERESTS

- Modeling the behavior of composite materials.
- Finite element analysis of multi-layered composite Plates and shells; linear, nonlinear, buckling, and vibration.
- Experimental techniques in structures.

PRACTICAL INTERESTS

- Analysis, design and construction of steel structures.
- Supervising and rehabilitation of concrete structures.

GRADUATE STUDIES

Supervised several M.Sc. and Ph.D. Thesis:

Completed Master Thesis

1. Khalid Zibdeh, “ *Improvement of ten-node triangular finite element for linear analysis of plates and shells* ”, Dec. 1989.
2. Mohammed Thiab, “ *Effect of fiber orientation on the buckling of laminated cylindrical shells* ”, May 1990 .
3. Sameer A. Al-Jawhary, “ *Parametric study of double-layer space frame grids* ”, Aug. 1990.
4. Amin K. Hebboub, “ *A New model with a parametric study of space Frame double -layer grids adopting a varying hexagonal module* ”, Dec. 1990 .

5. Mohammed A. Qasem," *Local and global smoothing of stresses in finite element analysis using least-squares method* ", June 1991.
6. Ahmad A. Salameh," *Study of the effectiveness of bimodular composite material models*", Jan. 1993.
7. Khaled Abhari, " *Study of various failure criteria and applications to composite laminates*", Aug. 1994, (Main supervisor)
8. Nidal M. H. Husein, " *Strength prediction of fibrous composite plates using finite element method*", May 1995.
9. Khaled A. H. Hamad, " *Compressive strength prediction of fiber-reinforced composite materials using micro-mechanical modeling* ", April 1996.
10. Naser R. Al-Zobi, " *Effect of material nonlinearity in unidirectional composites on the behavior of beam and frame structures* ". June 1997.
11. Farid H. Al-Rawi, " *Characterization and modeling of damage of composite materials* ", October 1997.
12. Hayder, M. Y. Al-Mayali," *Stability analysis of delaminated axially loaded members made of composite materials* ", November 1997.
13. Fawaz, F. Al-Nabulsi, " *Effects of central rectangular holes on the behavior of orthotropic plates using finite element method* ", December 1998, (Co-supervisor, Jordan University).
14. Ayad Ali-Humadi, " *Tension failure of laminated fibrous composites with holes* ", June 1999.
15. Rashid K. R. Abu Al-Rob, " *Nonlinear material behavior of fiber-reinforced composite plates subjected to out-of-plane loading* ", Nov. 2000.
16. Nabeela M. Abu-Dayya, " *Structural seismic behavior of beam-column joints using high performance concrete* ". May 2003, (Co-supervisor).
17. Amin H. Almasri, " *Effect of material nonlinearity on failure progress in laminated fibrous composite shells using finite element method* ". April 2004.
18. Tareq B. Z. El-Ghul, " *A micro-mechanical model for prediction of fibrous composite stiffness and strength properties*". December 2004.
19. Yasmeen T. Obaidat, " *Retrofitting of reinforced concrete beams using composite laminates*". May 2007.

20. Ahmad G. M. Tarabesheh, "*Nonlinear seismic analysis of high-rise buildings with semi-rigid connection*". December 2010, Co-supervisor (Jordan University).
21. Anas M. S. A. Ghanmeh, "*Bracing effect of masonry infill walls on reinforced concrete frames subject to earthquake loading*". December 2010, (Co-supervisor with Jordan University).
22. Dana H. A. Qa'dan, "*Effect of central holes on fibrous composite laminated plates subject to in-plane loading*", December 2011 (Main Supervisor).
23. Asad S.i Albustami "*Effect of nonlinear material behavior of rectangular laminated composite plates with central rectangular hole subjected to out -of-plane loading using finite element method*", April 2013, (Co-supervisor with Jordan University).
24. Kamal A. Al-Faqeeh, "*Behavior of steel beam-to-column connections subjected to shear force and/or moment using finite element method*". Mayl 2013.
25. Areej Th. Malkawi , "*Behavior of laminated composite curved beams subjected to end bending moment* ", April 2013.
26. Reem A. K. F. Aboznemah , "*Buckling of laminated fiber-reinforced composite cylindrical panels under external pressure*", June 2014.

Completed Ph.D. Thesis

1. Hani A. K. Qedan, "*Buckling of steel portal frames considering geometric and material non-linearities* ", March 2003, Co-supervisor (Jordan University).
2. Raja M. Younes, "*Effect of Welding on lateral-torsional buckling resistance of I-shaped built-up sections*", February 2008, Co-supervisor (Jordan University).

Grants and Contracts:

- Contract working as *Associate Professor (B)* Al-ISRA University, Amman, Jordan, 1993-1994.
- *Ph.D. Grant*: Bizzari Engineering Incorporation, Geneva, Switzerland (Their subsidiaries. Stemmos Ltd. , London), 1979-1984.
- Contract working with Al-Hani Company as *Site Engineer*, Kuwait, 1978-1979.

- Grant No. 2/87 (*JUST*): “ Improvement of Finite Element Method ” , Investigator : G. Abu-Farsakh.
- Grant No. 62/87 (*JUST*): “ Vibration Analysis for Gas Turbine Engine Blades Using New Triangular Finite Element ” , Investigators: G. Abu-Farsakh and N. Khader.
- Grant No. 15/97 (*JUST*)-2500 *JD*: “ Flexural Buckling of Pretwisted Columns: Experimental Study ” , Investigators: S. A. Barakat, G. A. Abu-Farsakh and M. Smadi.
- Grant No. 30/2000 (*JUST*)-5000 *JD*: “Behavior of extended end-plate for beam-to-column connection (experimental study)”, Investigators : Kh., Nusairat, G. A. Abu-Farsakh and S. Barakat.
- Grant No. 12/2002 (*JUST*)- 3000 *JD*: “Structural seismic behavior of beam-column joints using high performance concrete “ , Investigators: M. J. Shonnak, and G. A. Abu-Farsakh.
- Grant No. 166/2002 (*JUST*)-1050: ” Effect of material nonlinearity on failure progress in laminated fibrous composite shells using finite element method”, Ghazi A. Abu-Farsakh and Amin H. Almasri.
- Grant No. 168/2002 (*JUST*)-700 *JD*: “A micro-mechanical model for prediction of fibrous composites stiffness and strength properties”, Investigators: Ghazi A. Abu-Farsakh and Tareq B. Z. El-Ghul.

HONORS AND AWARDS

Academic Performance

- First through primary to high school.
- Seventh of Merit list in final of secondary school in state of Kuwait, 1973.
- Awarded seven gold medals from state of Kuwait on the extra-ordinary performance in school .
- Stood third in an International United Nation student standard test (10th grade, 1971).
- Stood second in a nation-wide essay contest on the subject: Electro-Magnetic Waves, Kuwait, 1972.
- Stood first amongst Structural Group with first class honors in B.Sc. Civil Engineering Department, Ain Shams University, Cairo, Egypt, 1978.

COMMITTEES

Participated in the following committees for several times:

1) *Department Committees (JUST)*

- Promotion
- Graduation Projects
- Courses and Graduation
- Computer and Library
- Social Activities
- Specialization
- Courses' Equivalency
- Department Promotion
- Scientific Research and Graduate Studies
- Appointments

2) *College Committees (JUST)*

- *College of Engineering Council (elected twice)*
- Promotion
- Appointment.
- Library

3) *University Committees (JUST)*

- University Promotion-Regulations
- University Saving Committee

4) *College Committees (AI-ISRA UNIV.)*

- College of Engineering Council

5) *University Committees (AI-ISRA UNIV.)*

- University Council

6) *University Committees (JERASH UNIV.)*

- University Council
- Deans Council

WORKSHOPS AND TRAINING COURSES

- Presented a workshop on “Steel Bolted Connections: Part I”, using the AISC-Code, Jan. 29, Feb. 2-3, 2006.
- Presented a workshop on “ Stability of steel-frame structures”, Sep. 25-27, 2000.

- Prepared to give: Workshop on “ Advanced composite materials; mechanics & applications “.

COMMUNITY SERVICE

- Participated in the design of strong steel floor in the structural lab.- Civil Engineering Department at Jordan University of Science and Technology (*JUST*), JORDAN.
- Design of a steel ramp for the entrance of the structural lab. at Jordan University of Science and Technology (*JUST*), JORDAN , to support heavy machinery of maximum of 40 tons.
- Design of large cantilevered steel signals at the main entrance of (*JUST*), JORDAN.
- Participated in the design of the steel stage for the opening ceremony of at (*JUST*), JORDAN.
- Chairman of committee for design of steel shelters for the Service & Transport Department at (*JUST*), JORDAN.
- Chosen as *ICCE/2* distinguished regional representative (*Second International Conference on Composites Engineering*), New Orleans, U.S.A.

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL SOCIETIES

- Chosen as a member of both the Editorial Board and Local Advisory Committee for the *Jordanian Journal of Civil Engineering* assigned by Minister of Higher education for two successive periods three years each (2004- 2007, 2007-2010).
- Member of Advisory Board of Ghazi University *Journal of Science*, Turkey, 2006-till now.
- Invited member of International Community of Composites Engineering (*ICCE*), University of New Orleans, New Orleans, U.S.A., 1994-1996.
- Invited member of The International Advisory Committee as a representative to JORDAN, *Tenth International Conference on Composite Materials, (ICCM-10)*, to be held in Vancouver-CANADA, 1995.
- Invited member of Scientific Committee, Ninth International Conference on Composite Materials, (*ICCM-9*), Madrid-SPAIN, 1993.
- Member of *Society for Experimental Mechanics (SEM)*, 1984-1986.
- Member of *Jordanian Engineering Association*, since 1978.

- Member of *Kuwait Society of Engineers*, 1978-1979.

PROFESSIONAL AND SCIENTIFIC MEETINGS

1. *Conference on Experimental Mechanics* , Las Vegas, Nevada, June , 1985. Paper title: "Experimental Determination of the Geometric imperfections Related to Buckling of GRP-Shells".
2. *Twelfth International Congress for Statistics, Computer Science, Social and Demographic Research* , Ain Shams Univ., Cairo, 28 March -2 April 1987. Paper title: "A Modified Ten-Noded Triangular Finite Element for Coarse Mesh Divisions".
3. *First Alexandria Conference on Structural and Geotechnical Engineering*, Alexandria Univ., Alexandria, 1-3 Dec. 1990. Paper title: " Computer Aided Design of Steel Structures".
4. *Ninth International Conference on Composite Materials (ICCM-9)* ,Madrid-Spain, 12-16 July 1993. Paper title: "Prediction of Failure Modes of Fibrous Composite Materials".
5. *Second International Conference on Composites Engineering (ICCE/2)*, New Orleans, U.S.A., 21-24 August, 1995. Paper title: " Prediction of Failure of Laminated Fibrous Composite Materials".
6. *Ninth Arab Structural Engineering Conference (9ASEC)*, Abu Dhabi, UAE, November 29- December 1, 2003. Paper title: " Effect of Material Nonlinear Behavior of Fibrous Composites on Bending of Plates".
7. *Seventh international Conference on Concrete Technology in Developing Countries (7th ICCT)* “, KualaLumpur, Malyasia, October 5-8, 2004. Paper title: “ Effect of Material Nonlinearity on Failure of Laminated Fibrous Composite Shells Using Finite Element Method “.
8. Tenth Arab Structural Engineering Conference (10ASEC), “ Kuwait , November 13-15, 2006. Paper title: "Buckling of Steel Portal Frames Considering Material Nonlinearity: An Experimental Study".
9. International Symposium on Aircraft Materials (*ACMA-2010*): Damage and Fatigue Diagnostics, "Marrakech, Morocco, May 12-14, 2010. Paper title: A Composite Finite Element to Predict Failure Progress in Composite Laminates: Comparison with Theories and Test Results.

REVIEWER OF SCIENTIFIC ARTICLES

- Reviewer of several scientific papers in *Abhath Al-Yarmouk* journal, Yarmouk University, Irbid, JORDAN.
- Reviewer of several articles in the *ICCM-9 Conference* and member of Scientific Committee, 1993, Madrid, SPAIN.
- Reviewer of articles in *Journal of Sound and Vibration*, London, U.K.
- Reviewer of several articles in *ICCM-11 Conference*, Gold Coast, Australia, 1997.
- Reviewer of articles in *Jordan Journal of Applied Sciences*, Amman, Jordan.
- Reviewer of articles in *3rd Jordanian Civil Engineering Conference*, Amman, Jordan, 2002.
- Reviewer of articles in *Dirasat* journal, Jordan University.
- Reviewer of articles in *Najah University Research Journal (for Natural Sciences)*.
- Reviewer of articles in *Steel and Composite Structures* journal, Techno-press.
- Reviewer of articles in *Gaza Islamic University* journal
- Chosen as a referee member for the best translated book prize sponsored by Philadelphia University, Jordan.
- Reviewer of articles in *Jordan Journal of Civil Engineering*, JUST, Jordan.

COMPUTER CAPABILITIES

- Developed several computer programs using FORTRAN and BASIC programming languages for different structural applications.
- Ability to deal with Personal (PCs) and Main System computers.
- A friendly user to several MS-Windows programs.
- A friendly user to internet applications and programs.

The research papers which appeared in the **PUBLICATION** section and my present research work have been categorized into three major areas according to their structural relations and have been incorporated into three developed different computer packages as follows:

- Finite element analysis and applications ⇒ **FELINE**

- Mechanics of composite materials models and theories ⇒ **MCOMP**
 - Steel structures analysis and design aspects ⇒ **PROSSAD**
- Developed a **FELINE** (Finite Element **LINE**ar) computer package using a Windows-based Visual Basic computer language for:
 - Linear elastic analysis of plates and shells using finite element method.
 - Linear analysis of plates and shells considering nonlinear material effect.
 - Determination of laminate strength at failure.
 - Crack propagation in multi-layered composite shells.
 - Developed a **MCOMP** (**M**echanics of **COM**posites) computer package using a Windows-based Visual Basic computer language for the prediction of composite materials behavior such as:
 - Material property constants.
 - Prediction of stress-strain response in different fiber directions.
 - Prediction of lamina and laminate strengths for different plane-stress combinations.
 - Damage analysis of composite lamina and laminates.
 - Developed a steel **PROSSAD** (**PRO**gram for **Steel Structures Analysis & Design**) computer package using a Windows-based Visual Basic computer language for analysis and design of different plane steel structures using the AISC-ASD specifications.

OTHER ACTIVITIES

- Participated in *Engineering Education Workshop*, JUST, JORDAN, Sept. 1987.
- Participated in *Administrative and Financial Development Workshop*, JUST, JORDAN, Jan. 1993.
- Participated in several *Education Workshops*, AL-ISRA university, JORDAN, 1994.
- Participated in a Workshop on *Graduate Studies, Part 1: Supervising Master Thesis*, JUST, JORDAN, April 1995.
- Participated in Workshop on *Graduate Studies, Part 2: Comprehensive Exam, Master Thesis, Grades and Evaluation*, JUST, JORDAN, June 1995.
- Chosen as a referee-member for several promotions for the rank of professorship for several Arab universities.

CONSULTATIONS

- Participated (as a team leader) in the rehabilitation of a four-story concrete building in Irbid city having crushed column-necks slightly above the foundation level, (1998).
- Assigned, from the Higher Education Council in Jordan, as a member of the general accreditation committee for the Al-Zaytoonah Jordanian Private University, (1999).
- Assigned from the Ministry of Higher Education/ Accreditation Committee as a chairman of the accreditation committee for three community colleges: Al-Razi, Ibn-Khaldoon and Al-Mafraq National colleges.
- Participated (as part of a team) in re-analysis and re-design of Al-Ramtha stadium (concrete structure), Al-Ramtha city - Jordan, (2000).
- Assigned, from the Minister of Public Works and Housing, as a member of the technical committee for investigating reasons of failure of several steel structures in Jordan due to the revealing weather conditions (2003).

PRESENTATIONS

1. Presented a paper entitled: “ Experimental Determination of the Geometric Imperfections Related to Buckling of GRP-Shells ”, In *Conference on Experimental Mechanics*, Las Vegas, Nevada, USA, June 1985.
2. Presented a paper entitled: “ A modified Ten-Noded Triangular Finite Element for Coarse Mesh Divisions ”, In *Twelfth International Congress for Statistics, Computer Science, Social and Demographic Research*, Ain Shams Univ., Cairo, Egypt, 28 March-2 April, 1987.
3. Presented a paper entitled: “ Computer Aided-Design of Steel Structures ”, In *First Alexandria Conference on Structural and Geotechnical Engineering* . Alexandria Univ., Alexandria, 1-3 Dec., 1990.
4. Presented a paper entitled: “ Prediction of Failure Modes of Fibrous Composite Materials ”, In *Ninth International conference on Composite Materials (ICCM-9)*, Madrid, Spain, 12 - 16 July, 1993.
5. Presented a paper entitled: “ Prediction of Failure of Laminated Composite Materials ”, In *Second International Conference on Composites Engineering (ICCE/2)*, New Orleans, U.S.A., 21-24 August, 1995.

6. Presented a paper entitled: " Effect of Material Nonlinear Behavior of Fibrous Composites on Bending of Plates". In *Ninth Arab Structural Engineering Conference (9ASEC)*, Abu Dhabi, UAE, November 29- December 1, 2003.
7. Presented a paper entitled: " Effect of Material Nonlinearity on Failure of Laminated Fibrous Composite Shells Using Finite Element Method ". In *Seventh international Conference on Concrete Technology in Developing Countries (7th ICCT)*, Kuala Lumpur, Malaysia, October 5-8, 2004.
8. Presented a paper entitled: "Buckling of Steel Portal Frames Considering Material Nonlinearity: An Experimental Study", In *10th Arab Structural Engineering Conference*, Kuwait , November 13-15, 2006.
9. Presented a paper entitled: "A Composite Finite Element to Predict Failure Progress in Composite Laminates: Comparison with Theories and Test Results", In *International Symposium on Aircraft Materials (ACMA-2010): Damage and Fatigue Diagnostics*, Marrakech, Morocco, May 12-14, 2010.

PUBLICATIONS (REFEREED & INDEXED JOURNALS)

1. Abu-Farsakh, G.A.R. and Lusher J.K. " Buckling of Glass Reinforced Plastic Cylindrical Shells Under Combined Axial Compression and External Pressure ". *AIAA Journal*, Vol. 23, No. 12, 1985, pp. 1946-1951.
2. Abu-Farsakh, G. " Experimental Buckling of GRP Cylindrical Shells ". *Experimental Mechanics (SEM)*, Vol. 27, No. 1, 1987, pp. 1-9 .
3. Abu-Farsakh, G. " New Triangular Finite Element for Plates and Shells ". *Engineering Computations* , Vol. 4, No. 2, 1987, pp. 149-160 .
4. Abu-Farsakh, G. , and Khader, N. " A New Triangular Finite Element for the Analysis of Free Vibration of Plates ". *The International Journal of Analytical and Experimental Modal Analysis (SEM)*, Vol. 2, No. 3, 1987, pp. 136-143 .
5. Abu-Farsakh, G. " New Material Models for Nonlinear Stress-Strain Behavior of Composite Materials ". *Composites* , Vol. 20, No. 4, 1989, pp. 349-360.
6. Abu-Farsakh, G. " An Alternative Model for Nonlinear Stress-Strain Behavior of Composite Materials ". *Materials Science* , Vol. 24, 1989, pp. 4009-4023.
7. Abu-Farsakh, G. " A Modified Triangular Element for Plate and Shell Analysis ". *Journal of Structural Engineering (IIT)*, Vol. 17, No. 1, 1990, pp. 1-18.
8. Khader, N.A., and Abu-Farsakh G. " A Triangular Shell Element for Vibration of Cambered and Twisted Fan Blades ". *Finite Elements In Analysis and Design*, Vol. 6, 1990, PP. 287-301.

9. Abu-Farsakh, G.A., and Al-Zebdeh, Kh. " An improved Ten-Node Flat Shell Element and Performance Studies ". *Journal of Structural Engineering (IIT)*, Vol. 18, No. 2, 1991, pp. 43-53.
10. Abu-Farsakh, G.A. " A Bimodular Material Model for Orthotropic Composite Thin Plates ". *Journal of Composites Technology & Research (ASTM)*, Vol. 14, No. 1, 1991, pp. 31-36.
11. Abu-Farsakh, G.A. and Sheikh Qasem, M. " Global and Sub-Domain Smoothing of Stresses in Finite Elements ". *Journal of Structural Engineering (IIT)*, Vol. 21, No. 3, 1994, pp. 213-220.
12. Al-Balbissi, A.H., Abu-Farsakh, G.A., and Basma, A.A. " A Binary Model for Estimating the Remaining Life of a Cracked Pavement Element ". *TRB 73 Annual Meeting*, Jan. 9-13,1994.
13. Abu-Farsakh, G. A., and Abdel-Jawad, Y. A., " A New Failure Criterion for Nonlinear Composite Materials ". *Journal of Composites Technology & Research (ASTM)*,Vol. 16, No. 2, April 1994, pp. 138-145.
14. Abu-Farsakh, G. A., and Qatu, M. S. " A Triangular Conforming Element for Laminated Shells ". *Thin-Walled Structures*, Vol. 21, 1995, pp.31-42.
15. Abu-Farsakh, G.A., and Abdel-Jawad, Y.A. " Modes of Failure of Fibrous Composite Materials as Affected by the Orientation Angle of Fiber ". *Journal of Composites Technology & Research (ASTM)*,Vol. 17, No. 2, 1995, pp. 90-98.
16. Abu-Farsakh, G. A., and Husein, N. M. " Crack Propagation in Laminated Fibrous Composite Plates Using Finite Element Method ". *Journal of Structural Engineering (IIT)*, Vol. 23, No. 1, 1996, pp. 15-22.
17. Abu-Farsakh, G. A., and Khader, N. " Vibration Analysis of Multi-Layered Composite Thin Plates and Shells " . *Journal of Structural Engineering (IIT)*, Vol. 23, No. 3, 1996, pp. 137-143.
18. Abu-Farsakh, G. A., Numayr, K. S. and Hamad, Kh. A. " A micro-mechanical model for predicting the compressive strength of fibrous composite materials " . *Composites Science & Technology*, Vol. 58, No. 9-10, 1997, pp. 1415-1422.
19. Abu-Farsakh, G. A. " Letter to the Editor on: A micro-mechanical model for predicting the compressive strength of fibrous composite materials " . *Composites Science & Technology*, Vol. 58, No. 1-2, 1998, pp. 1985.
20. Abu-Farsakh, G. A., and Abdel-Jawad, Y.A. " Determination of the Reference-Axes for Bimodulus Cross-Ply Fibrous Composite Plates " . *Journal of Structural Engineering (IIT)*, Vol. 25, No. 2, 1998, pp. 131-137.

21. Abu-Farsakh, G. A., Barakat, S. A. and Abed, F. H. " A macr-mechanical damage model of fibrous laminated composites ". *Applied Composite Materials*, Vol. 6, No. 2, 1999, pp. 99-119.
22. Barakat, S. A., and Abu-Farsakh, G. A. " The use of an energy-based criterion to determine optimum configurations of fibrous composites ". *Composites Science & Technology*, Vol. 59, 1999, pp. 1891-1899.
23. Abu-Farsakh, G. A., Barakat, S. A., and Al-Zoubi, N. R. " Effect of material nonlinearity in unidirectional composites on the behavior of beam structures ". *International Journal of Solids and Structures*, Vol. 37, 2000, pp. 2673-2694.
24. Abu-Farsakh, G. A., Abdel-Jawad, Y. A., and Abu-Laila, Kh. M. " Mico-mechanical charachterization of tensile strength of fiber composite materials ". *Mechanics of Composite Materials and Structures*, Vol. 7, pp. 1-18, 2000.
25. Abu-Farsakh, G. A., Abdel-Jawad, Y. A., and Al-Abhari, K. O. " Prediction of failure of Laminated Fibrous Composite Materials ". *Journal of Structural Engineering (IIT)*, Vol. 28, No. 4, 2002, pp. 183-189.
26. MJ Shannag, N. Abu-Dyya, G. Abu-Farsakh, " Lateral Load Response of High Performance Fiber Reinforced Concrete Beam-Column Joints", *Construction and Building Materials*, Vol. 19, No. 7, 2005, pp. 500-508.
27. Abu-Farsakh, G. A. and Abu-Alrub, R. K., "Moment and deflection redistributions in composite plates subjected to transverse loading ", *Journal of Structural Engineering (IIT)* , Vo. 33, No. 6, 2007, pp. 487-498.
28. Abdalla, K. M., Abu-Farsakh, G. A. R. and Barakat, S. A. "Behavior of extended end-plate steel beam-to-column connections", *Steel and Composite Structures*, Vol. 7, No. 2, 2007, pp. 87-103.
29. Shannag, MJ. Abu-Farsakh, G. and Abu-Dyya, N. , "Modeling the cyclic response of fiber reinforced concrete joints", *Engineering Structures* , Vol. 29, 2007, pp. 2960-2967.
30. Younes, R. M., Abu-Farsakh, G. and Hunaiti, Y. M., "Effect of welding on lateral-torsional buckling resistance of I-shaped built-up sections", *JJCE (Jordan Journal of Civil Engineering)*, Vol. 3, No. 4, 2009, pp. 295-313.
31. Obaidat, Y. T., Heyden S., Dahlblom, O., Abu-Farsakh, G. and Abdel-Jawad, Y. " Retrofitting of reinforced concrete beams using composite laminates", *Construction and Building Materials*, Vol. 25, 2011, pp. 591–597.
32. Abu-Farsakh, G. and Almasri, A. "A composite finite element to predict failure progress in composite laminates accounting for nonlinear material properties" *Structural Control and Health Monitoring*, Vol. 18, No. 7, 2011 pp. 752-768.

33. Abu-Farsakh, G. A., "Effect of shear stresses on failure of fibrous composite materials accounting for nonlinear material behavior", *JJCE (Jordan Journal of Civil Engineering)*, Vol. 7 No. 4, 2013, pp. 419-439.
34. Abu-Farsakh, G. and Almasri A. and Qa'dan, D. , " Stress concentration around a central hole as affected by material nonlinearity in fibrous composite laminated plates subject to in-plane loading". *Science and Engineering of Composite Materials (SECM)*, (On line publication) Dec. 2013.

CONFERENCE PROCEEDINGS

1. Abu-Farsakh, G. A. F., and Resheidat, M. R. " Experimental Determination of the Geometric Imperfections Related to Buckling of GRP-Cylindrical Shells ". *Conference on Experimental Mechanics*. Las Vegas , Nevada, 9-14 June, 1985, pp. 508-514.
2. Abu-Farsakh, G. A. F. " A Modified Ten-Noded Triangular Finite Element for Coarse Mesh Divisions ". *Twelfth International Congress for Statistics, Computer Science Social and Demographic Research*. Ain Shams University, Cairo, 28 March -2 April 1987, pp. 387-416.
3. Abu-Farsakh, G. A. F., and Issa , S.M. " Computer Aided-Design of Steel Structures " *First Alexandria Conference on Structural and Geotechnical Engineering*. Alexandria University, Alexandria, 1-3 Dec. 1990, pp. 813-826.
4. Abu-Farsakh , G.A.F. and Abdel-Jawad Y.A., " Prediction of Failure Modes of Fibrous Composite Materials ", *Ninth International Conference on Composite Materials (ICCM-9)*. Madrid -Spain, 12-16 July , 1993, Vol. V, pp. 129-136.
5. Abu-Farsakh, G. A., Abdel-Jawad, Y. A., and Al-Abhari, K. O., " Prediction of Failure of Laminated Fibrous Composite Materials ", *Second International Conference on Composites Engineering*. New Orleans LA, U.S.A., 21-24 August, 1995, pp. 1-3.
6. Abu-Farsakh, G. A. and Abu-Alrub, R. K. " Effect of Material Nonlinear Behavior of Fibrous Composites on Bending of Plates". *Ninth Arab Structural Engineering Conference (9ASEC)*, Abu Dhabi, UAE, November 29- December 1, 2003, pp. 565-574.
7. Abu-Farsakh, G. A., and Almasri, A. H. " Effect of Material Nonlinearity on Failure of Laminated Fibrous Composite Shells Using Finite Element Method " . *Seventh international Conference on Concrete Technology in Developing Countries (7th ICCT): Modeling and Numerical Methods for Concrete Materials Proceedings*, KualaLumpur, Malaysia, October 5-8, 2004, pp. 63-75.

8. Abu-Farsakh, G. A., Hunati, Y. and Qadan, H. "Buckling of Steel Portal Frames Considering Material Nonlinearity: An Experimental Study", *10th Arab Structural Engineering Conference*, Kuwait , November 13-15, 2006, pp. 645-655.
9. Abu-Farsakh, G. A. and Almasri, A. H. "A Composite Finite Element to Predict Failure Progress in Composite Laminates: Comparison with Theories and Test Results", *International Symposium on Aircraft Materials (ACMA-2010): Damage and Fatigue Diagnostics*, Marrakech, Morocco, May 12-14, 2010. pp. 22.