

Mu'tasim S. Abdel-Jaber

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EDUCATION

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| 2003 | Ph.D. Civil Engineering/Structures
Thesis "The Influence of Semi-Rigid Connections on the Behaviour of Beam and Column Structural System". | Oxford Brookes University,
Oxford – UK. |
| 1998 | M.Sc. Civil Engineering/Structures
Thesis "Review of Reinforced Concrete Wall Design Formulas". | The University of Jordan,
Amman –Jordan. |
| 1995 | B.Sc. Civil Engineering
Area of Concentration: Structural Engineering. Graduation project involves the design of a high rise building. | The University of Jordan,
Amman - Jordan. |

AWARDS

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| 2000 | Awarded third place prize for the Young Researcher's Conference. Organized by the British Institution of Structural Engineering (England; March- 2000). |
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WORK EXPERIENCE

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| 2018-Present | Vice Dean of School of Engineering, The University of Jordan.
Professor – Civil Engineering Department. |
| 2010-2017 | The University of Jordan.
Associate Professor – Civil Engineering Department. |
| 2004-2010 | The University of Jordan.
Assistant Professor – Civil Engineering Department. |
| 1999-2003 | Oxford Brookes University, U.K.
Teaching Assistant. |
| 1995-1999 | Structural engineer designer at Greater Amman Municipality, Jordan.
Design of bridges. |

Internal and External Community Services:

- Chairman, ABET committee team at the School of Engineering, The University of Jordan, (Achieving ABET accreditation for all the departments at the school of engineering in 2019).
- Member of board of trustees at Al-Ahliyya Amman University.
- Delegate board member of Arab union international insurance company.
- Member, UNDP project for enhancement of Quality Assurance and Institutional Planning at Arab Universities/ Faculty of Engineering and Technology, The University of Jordan.
- Certified Peer reviewer by UNDP and Quality Assurance Agency, QAA on Enhancement of Quality Assurance and Industrial Planning for engineering programs.
- Former member of Jordanian National Technical Committee Technical Board in preparing of reinforced concrete building code of practice, Ministry of Public Works and Housing- Jordan.
- Former member of the Steel Building code of practice Committee, Ministry of Public Works and Housing- Jordan.
- Performed and carried out a consultancy project on quality control and quality assurance of steel reinforcement bars manufacturing. Senior consultant for the National Steel Industries Company, Amman-Jordan.

- Reviewer for Journal of Constructional Steel Research.
- Reviewer for Construction and Building Materials Journal.
- Reviewer for Advanced Steel Construction Journal.
- Reviewer for Applied Mathematical Modelling Journal.
- Reviewer for Earthquake Engineering and Engineering Vibration Journal.
- Reviewer for Jordan Journal of Civil Engineering.
- Reviewer for Advances in Concrete Construction, an International Journal.

- Member of editorial board of the 6th Int. Conference on Steel and Aluminum Structural Engineering, ICSAS'07, (2007) Oxford - UK.
- Reviewer for the 7th International Conference on Steel and Aluminium Structures, Malaysia 2011.

- Supervising more than 40 master students at the university of Jordan and Oxford Brookes University.

Research in Process:

- Experimental and theoretical investigation of spigot connections under cyclic loading. This research is undergoing at Oxford Brookes University laboratory – U.K. In collaboration with Prof. Robert Beale.
- Experimental and theoretical investigation of full scale scaffold frame under cyclic loading. This research is undergoing at Oxford Brookes University laboratory – U.K. In collaboration with Prof. Robert Beale.

- Experimental and theoretical investigation of shear and flexural rehabilitation and strengthening of full scale reinforced T-beams using external carbon fibers laminates and sheets. This research is undergoing at the University of Jordan laboratory.

Publications

- **Abdel-Jaber M. S**, Beale R.G, and Shatarat N.K, “*Properties of tube and fitting scaffold connections under cyclical loads*”. **Journal of Constructional Steel Research**, , 2020.
- **Abdel-Jaber M. S**, Beale R.G, and Shatarat N.K, “*Cyclical Loading Applied to Sleeve Couplers for Tube and Fitting Scaffolds*”. **Lecture Notes in Civil Engineering**, Springer, Vol. 37 (Jan. 2020)
- Nasim Shatarat, Rozan Hunifat, Yasmin Murad, Hasan Katkhuda and **Mu'tasim Abdel Jaber**, “*Torsional capacity of reinforced concrete beams with different configurations of welded and unwelded transverse reinforcement*”. **Structural Concrete Journal**. Journal of the fib. Wiley, (2019)
- Nasim Shatarat, Abeer Abed Alhaq, Hasan Katkhuda and **Mu'tasime Abdel Jaber**, “*Investigation of axial compressive behavior of reinforced concrete columns using Recycled Coarse Aggregate and Recycled Asphalt Pavement aggregate*”. **Construction and Building Materials Journal**, Elsevier publications, Volume 217, pp 384-393, (May, 2019)
- Anis Shatnawi, Wassel AL Bodour, **Mu'tasim Abdel-Jaber** and Bashar Tarawneh. “*Empirical Formulas to Predict the Axial Capacity of Driven Piles Using In-Situ Dynamic Load Testing Data*”. **International Journal of Machine Learning and Computing (IJMLC)**, Vol. 9, No. 2. (April, 2019).
- **M. S. Abdel-Jaber**, R. G. Beale, N. K. Shatarat and M. A. Shehadeh, “*Experimental and Theoretical Investigation of Spigot Connections under Cyclic Loading*”. **Advanced Steel Construction, an Int. Journal (IJASC)**. Vol. 16, No. 1, pp 37-46 (2019).
- Hana Naghawi, Ala' Alobeidyee and **Mu'tasime Abdel-Jaber**, “*Econometric Modeling for International Passenger Air Travel Demand in Jordan*”. **Jordan Journal of Civil Engineering**, Vol. 13, No. 3 (2019).
- D. J Abed, **Mu'tasime Abdel-Jaber** and N. K Shatarat. “*Behavior of Square Reinforced Concrete Columns Strengthened with Carbon Fiber Reinforced Polymers (CFRP) Under Eccentric Loading*”. **International Journal of Civil Engineering and Technology**. Vol. 9, No. 11, pp.532-547 (November, 2018).
- **Mu'tasim S. Abdel-Jaber**, “*Nonlinear Natural Frequencies and Frequency Veering of a Beam with an Arbitrary Initial Rise Supported by Flexible Ends and Resting on Elastic Foundation*”. **Jordan Journal of Mechanical and Industrial Engineering**. Vol. 11, No.3. pp. 165-171, (September, 2017).

- **Mu'tasim Abdel-Jaber**, Ahmad Al-Qaisia and Nasim Shatarat, “*Nonlinear Vibration of a SWCNT with Geometrical Imperfection Using Nonlocal Elastic Theory*”. *Journal of Modern Applied Science*, Vol. 11, No.10. pp. 91-109, (2017).
- Hana Al-Ghanim, Aya Al-Asi, **Mu'tasim Abdel-Jaber**, and Maha Alqam, “*Shear and Flexural Behavior of Reinforced Concrete Deep Beams Strengthened with CFRP Composites*”. *Journal of Modern Applied Science*, Vol. 11, No.10. pp. 110-122, (2017).
- Al-Lasassmeh M., **Abdel-Jaber M. S.**, Alqam M. and Beale R.G., “*Second Order Numerical Analysis of Full-Scale Tube and Fittings Scaffold Structures with Non-linear Moment-Curvature: Comparison of 2D and 3D Models*”. In *The Eighth International Conference on Steel and Aluminum Structures*; Hong Kong (December, 2016).
- Shatarat. N, Katkhuda. H, **Abdel-Jaber. M** and Alqam. M, “*Experimental Investigation of Reinforced Concrete Beams with Spiral Reinforcement in Shear*”. **Construction and Building Materials**, Elsevier publications, Volume 125, pp 585-594, (August, 2016).
- **Mu'tasime Abdel-Jaber**, Anis Shatnawi and Khair Bsisu. “*Experimental Investigation of Punching Shear Behavior in RC Flat Slabs Strengthened with Micro Polypropylene Fibers*”. 4th International Conference on Sensors, Mechatronics and Automation – ICSMA 2016. (January 2016)
- Anis Shatnawi, **Mu'tasime Abdel-Jaber** and Khair Bsisu. “*Experimental Investigation of One-Way Shear Behavior in Reinforced Concrete Flat Slabs Strengthened with Micro-Polypropylene Fibers*”. 4th International Conference on Sensors, Mechatronics and Automation – ICSMA 2016. (January 2016)
- Khair Bsisu, **Mu'tasime Abdel-Jaber** and Anis Shatnawi. “*Finite Element Model of Shear Behavior of R.C. Flat Slabs Strengthened with Micro-Polypropylene Fibers*”. 4th International Conference on Sensors, Mechatronics and Automation – ICSMA 2016. (January 2016)
- **M. S. Abdel-Jaber**, A. A. Alqaisia, M. Abdel-Jaber and R. G. Beale, “*Steady State Response and Stability of an Elastically Restrained Tapered Beam*”. **Advanced Steel Construction, an Int. Journal (IJASC)**. Vol. 10 No.1, pp. 14-32, (2014).
- **M. S. Abdel-Jaber** and A. A. Alqaisia, “*Effect of Supports Flexibility on Frequency Veering in Imperfect Beams Resting on Elastic Foundation*”. *Proceedings of the Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing*, paper 237, 2013
- **M. Abdel-Jaber**, A. Qaisieh and R. Beale, “*Steady State Response and Stability of an Elastically Restrained Tapered Beam*”. **Advanced Steel Construction, an Int. Journal (IJASC)**. Vol. 10 No.1, pp. 14-32, (2014).

- Moudar Zgoul, Hashem Alkhalidi, Saad Habali, **Mu'tasim Abdel-Jaber** and Mohammed Ziadeh, "*Failure Investigation of Reinforced Concrete Columns Exposed to Fire*". Journal of Dirasat, Engineering Sciences. Vol.39, No.1. pp. 56-65, (2013).
- **Mu'tasime Abel-Jaber**, Ahmad Al-Qaisia and Ma'en Abel-Jaber, "*Forced Vibrations and Stability of an Elastically Restrained Tapered Beam*". 7th International Conference on Steel and Aluminium Structures (ICSAS 11), Kuching – Malaysia, 13-15 July 2011.
- A.S. Shatnawi, S.Z. Al-Sadder, **M.S. Abdel-Jaber** , R. A. Othman and N. S. Ahmed, "*Method of Characteristics For Dynamic Geometrically Non-Linear Analysis of Beams*". **Advanced Steel Construction, an Int. Journal (IJASC)**. Vol. 6, No.3. pp.831-851, (Sep, 2010).
- H. M. Duwairi, R. A. Damseh, A. J. Chamkha and **M. S. Abdel-Jaber**, "*Transient Free Convection Flow of a Viscoelastic Fluid Over Vertical Surface*". **Journal of Applied Mathematics and Mechanics**. Ed.31. pp. 557-564, (May, 2010).
- Anis Shatnawi, Samir Al-Sadder, and **Mu'tasim Abdel-Jaber**, "*Symmetrical and Anti-Symmetrical Buckling of Long Corroded Cylindrical Shell Subjected To External Pressure*". Jordan Journal of Civil Engineering, Ministry of Education and Scientific Research, Jordan Univ. of Science and Technology. Vol. 4 No. 2 (2010).
- F.H. Al-Qarud, A.S. Shatnawi, **M.S. Abdel-Jaber**, and R.G. Beal, "*Influence of Partial Loading on the Behaviour of Pallet Rack Structures*". **Advanced Steel Construction, an Int. Journal (IJASC)**. Vol. 6 No.2, June (2010).
- **M. S. Abdel-Jaber**, R. G. Beale, M. H. R. Godley and M. Abdel-Jaber, "*Rotational Resistance of Tube and Fitting Scaffold Connectors*". **Structures and Buildings (ice)**, Proceedings of the Institution of Civil Engineers. Vol. 162 (2009).
- RG Beale, **MS Abdel-Jaber**, MHR Godley, M Abdel-Jaber, "*Rotational Strength and Stiffness of Tube and Fitting Scaffold Couplers*". Technical report, Department of Mechanical Engineering, **Oxford Brookes University**, 2009.
- **Mu'tasim Abdel-Jaber**, Samir Al-Sadder, Anis Shatnawi, "*Equilibrium Configurations of Heavy Elastica Beams Under Unilateral Contact Constraints*". Proc. of the 9th Int. Conference on Computational Structures Technology, Greece, 2-5th Sep (2008), Civil Comp Press, Scotland, paper 210.
- Anis S. Shatnawi, Abdel-Qader S. Najmi, **Mu'tasim S. Abdel-Jaber** and Iyad M. Ammarin, "*Nonlinear Seismic Response of Base Isolated Frame Structures Using Rubber Bearings*". Jordan Journal of Civil Engineering, Ministry of Education and Scientific Research, Jordan Univ. of Science and Technology., Vol.2 No. 2 (2008) pp.152-171.
- Ma'en Abdel-Jaber, Anis Shatnawi, and **Mu'tasim Abdel-Jaber**, "*Guidelines for Shear Strengthening of Beams Using Fiber-Reinforced Polymers (FRP) Plates*". Jordan

Journal of Civil Engineering (JJCE), Ministry of Education and Scientific Research, Jordan Univ. of Science and Technology., Vol.1, No. 4, (2007) pp. 327-335.

- **M. S. Abdel-Jaber**, R. G. Beale, M. H. R. Godley and M. Abdel-Jaber, “*Characteristic Rotational Strength of Putlog Connectors*”. Proc. of the 3rd International Conference on Structural Engineering (SEMC 2007), Cape Town – South Africa, Paper 18.2, 2007.
- **Mu’tasim Abdel-Jaber**, Robert. G Beale, Ma’en Abdel-Jaber and Anis Shatanawi, “*Two-Dimensional and Three-Dimensional Comparison of Second Order Analysis of Pallet Rack Structures with Non-Linear Moment-Curvature for Semi-Rigid Connections*”. Fifth International Conference of Thin-Walled Structures. Brisbane-Australia (2008).
- Anis S. Shatnawi, **Mu’tasim S. Abdel-Jaber**, Ma'en S. Abdel-Jaber, and Khaled Z. Ramadan, “*Effect of Jordanian Steel Blast Furnace Slag on Concrete Hot-Asphalt Mixes*”. Jordan Journal of Civil Engineering, Ministry of Education and Scientific Research, Jordan Univ. of Science and Technology., Vol.2, No. 3, (2008) pp197-207.
- **Mu’tasim Abdel-Jaber**, Khaled Ramadan, Ma’en Abdel-Jaber and Anis Shatanawi, “*Utilization of Steel Slag By-Product in Asphalt Concrete Hot Mixes*”. 3rd EATA Conference 14th-15th April (2008), Lyon-France.
- **M. S. Abdel-Jaber**, A. A. AL-Qaisia, M. Abdel-Jaber and R.G Beale, “*Nonlinear natural Frequencies of an Elastically Restrained Tapered Beam*”. **Journal of Sound and Vibration, (2008)**.
- **M. S. Abdel-Jaber**, R.G Beale and M.H.R Godley, “*Characteristic Rotational Strength of Putlog Connectors*”. The Third International Conference on Structural Engineering, Mechanics and Computation (SEMC 2007), Cape-Town; South Africa (10th -12th September 2007). Cape Twon, Editor Zingoni.
- S. Al-Sadder, A. Shatnawi and **M. Abdel-Jaber**, “*Buckling of Stepped Non-Uniform Long Cylindrical Steel Sell Subjected to External Pressure*”. 6th International Conference on Steel and Structural Engineering (ICSAS'07), Oxford, UK, July 24th – 27th 2007.
- S. Al-Sadder, A. Shatnawi and **M. Abdel-Jaber**, “*Dynamic Behaviour of Slender Steel Beams Under Large Deflection by the Method of Characteristics*”. 6th International Conference on Steel and Structural Engineering (ICSAS'07), **Oxford, UK**, July 24th – 27th 2007.
- A. Al-Qaisia, A. Shatnawi and **M. Abdel-Jaber**, “*Non-linear Natural Frequencies of a Tapered Cantilever Beam*”. 6th International Conference on Steel and Structural Engineering (ICSAS'07), **Oxford, UK**, July 24th – 27th 2007.
- N. Armouti, A. Shatnawi and **M. Abdel-Jaber**, “*Effect of Axial Stiffness of Stability Frame*”. 6th International Conference on Steel and Structural Engineering (ICSAS'07), **Oxford, UK**, July 24th – 27th 2007.

- **M. Abdel-Jaber**, R.G Beale and M.H.R Godley, “*A theoretical and experimental investigation of pallet rack structures under sway*”. **Journal of Constructional Steel Research**. Vol 62-2006, pp. 68-80.
- **M. Abdel-Jaber**, R.G Beale and M.H.R Godley, “*Numerical study on semi-rigid racking frames under sway*”. **Journal of Computers and Structures**, vol 83 – 2005, pp. 2463-2475.
- F. M. Wegian, M. T. Alkhamis, F. A. Almottiri, **Mu’tasim Abdel-Jaber** and Maen Abdel-Jaber, “*Construction on Petroleum Saturated Media*”. *Journal of Soil Mechanics and Foundation*. Vol. 15, No. 2, 2004.
- **Abdel-Jaber M**, Beale R G and Godley M H R, “*An investigation into pallet rack structures under sway*”. The Second International Conference on Structural Engineering, Mechanics and Computation, Cape-Town; South Africa 5-7 July 2004. Cape Twon, Editor Zingoni, A, pp1337-1341. <http://www.semc2004.uct.ac.za/ProvisionalProgramme.doc>
- **Abdel-Jaber M**, Beale R G and Godley M H R, “*An investigation into the factors affecting the accuracy of beam-end connector tests in pallet rack structures*”. The Second International Conference on Structural Engineering, Mechanics and Computation, Cape-Town; South Africa 5-7 July 2004. Cape Twon, Editor Zingoni, A, pp 1353-1358. <http://www.semc2004.uct.ac.za/ProvisionalProgramme.doc>
- **M. Abdel-Jaber**, R.G Beale and M.H.R Godley, “*Numerical Study on Semi-Rigid Racking Frames*”. In The Ninth International Conference on Civil and Structural Engineering Computing, Egmond-aan-Zee; The Netherlands 2-4 Sep 2003 paper 30. <http://www.civil-comp.com/conf/cc03.htm>
- **Abdel-Jaber M. S**, Internal Report, School of Architecture, Oxford Brookes University, Jan, 2001.
- **Abdel-Jaber M. S**, An investigation into the influence of semi-rigid connections on the behaviour of beam column design, The Institution of Structural Engineers, Young Researchers’ Conference, Abstract No.1, March, 2000.

References :

- 1- Prof. Robert Beale, Oxford Brookes University. U.K
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