

CURRICULUM VITAE

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FIELDS OF INTERESTS

- Railway Engineering
- Ground-borne Vibration
- Track dynamics
- Structural dynamics
- Soil-structure interaction
- Human-structure interaction

WORK EXPERIENCE

Jan 2016-

Acting Head, Department of Civil and Architectural Engineering, College of Engineering, Qatar University, Doha, Qatar.

Sep 2014-

Associate Professor in Civil Engineering, Department of Civil and Architectural Engineering, College of Engineering, Qatar University, Doha, Qatar.

July 2013- Aug 2014

Senior Lecturer (Associate Professor) in Railway Dynamics, Department of Civil and Environmental Engineering, University of Southampton, Southampton, UK.

Sep 2006- June 2013

Lecturer in Civil Engineering (and later promoted to Associate Professor), Department of Civil Engineering, University of Nottingham, Nottingham, UK.

Sep 2005- Aug 2006

Research Associate, University of Cambridge, Department of Engineering, Cambridge, UK.

Sep 2002-Aug 2006

Part-time Supervisor (during PhD and postdoc) of Structural Mechanics, Materials and Mechanical Vibration for undergraduate students at Trinity College, Fitzwilliam College and Robinson College, Cambridge University.

Aug 2000-May 2001

Teaching assistant, Department of Civil Engineering, University of Khartoum, Khartoum, Sudan.

May 2000- Aug 2000

Site Engineer, Farahab Engineering, Khartoum, Sudan.

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QUALIFICATIONS

- PGCHE, Postgraduate Certificate of Higher Education, University of Nottingham, Nottingham, UK, June 2013.
- PhD, Engineering Department, University of Cambridge, UK, July 2005.
Dissertation title: Vibration from Underground Railways.
- B.Sc. First Class Honours, Department of Civil Engineering, University of Khartoum, Sudan, July 2000.

AWARDS & DISTINCTIONS

- Fellow of the Higher Education Academy, UK, awarded in June 2013.
- Visiting Research fellowship, Trinity College, Cambridge University, UK, awarded in April 2012.
- Best paper award, Young Engineers Conference, Society for Earthquake and Civil Engineering Dynamics, November 2010.
- Research fellowship, the Katholieke University Leuven, awarded in June 2005.
- Cambridge Overseas Trust and London Underground Limited: a PhD Scholarship awarded in Oct 2002.
- Fellowship of the Cambridge Commonwealth Society, Cambridge, UK, awarded in May 2002.
- The Sudanese Engineering Society prize for the best final year project in Civil Engineering, University of Khartoum, awarded in June 2000.
- The 1st prize in mathematics. The 1st Olympics competition for high schools. University of Sudan, awarded in April 1993.

MEMBERSHIPS

- Fellow of the Higher Education Academy.
- Graduate Member of the Institution of Civil Engineers.
- Member of the International Institute of Acoustics and Vibration.
- Fellow of the Cambridge Commonwealth Society.

PROFESSIONAL ACTIVITIES

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- Director for the International Institute of Acoustics and Vibration (IIAV), from July 2015.
- Co-organiser of a conference session in ICSV on Road & Rail Traffic Noise & Vibration, to be held in UK from 23-27 July 2017.
- Co-organiser of a conference session in COMPDYN on Vibration induced by rail and road traffic, to be held in Greece from 15-17 June 2017.
- Member of panel for Qatar's underground infrastructure and deep foundation summit, 31 May – 3 June 2015, Doha, Qatar.
- Co-organiser of a conference session in COMPDYN on Vibration induced by rail and road traffic, Greece from 25-27 May 2015.
- Member of Board of Academic Members of the International Congress on Advanced Railway Engineering (IC-ARE), hosted by Istanbul University in Istanbul, Turkey from 2-4 March 2015.
- Member of WG8 of the ISO standard committee of TC108/SC2 on ground-borne noise and vibration from railways.
- Reviewer for the Higher Education Academy's National Teaching Fellowship Scheme.
- Member of the railway vibration expert panel for the IOA branch meeting on the 13th of May 2013 in Nottingham.
- Co-organiser of a conference session in the 11th Biennial International Conference on Vibration Problems (ICOVP-2013) in Lisbon, Portugal, in September 9 - 12, 2013.
- Organiser of a conference session in the International Conference on Computing in Civil and Building Engineering, Nottingham from the 30th of June to the 2nd of July 2010.
- Member of the organising committee of the International Conference on Computing in Civil and Building Engineering, Nottingham from the 30th of June to the 2nd of July 2010.
- Chairman of sessions for the 8th International Conference on Structural Dynamics (EURODYN) in July 2011.
- Chairman of sessions for the 14th and 16th International Congress on Sound and Vibration in July 2007 and July 2009 respectively.
- Reviewer for:
 - 1- Journal of Sound and Vibration.
 - 2- Engineering Structures.

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- 3- The International Journal of Solids and Structures.
- 4- Soil Dynamics and Earthquake Engineering.
- 5- Journal of Acoustical Society of America.
- 6- The International Journal of Acoustics and Vibration.
- 7- Earthquake Engineering and Engineering Vibration.
- 8- Journal of Rail and Rapid Transit.
- 9- Journal of Structural Engineering.
- 10- Acta Acustica united with Acustica.
- 11- Journal of Computing in Civil Engineering.
- 12- Shock and Vibration.
- 13- Applied Mathematical Modelling
- 14- Computers and Geotechnics
- 15- Tunnelling and Underground Space Technology
- 16- Proceedings of ICE journal - Structures and Buildings.

INVITED LECTURES & SEMINARS

- 1- On the dynamic performance of floating-slab tracks, the 6th Underground Infrastructure & Deep Foundations Summit, Doha, Qatar, 24/5/2016.
- 2- The impact of ground-borne vibrations from railways on infrastructure and buildings above the ground and the engineering solutions, the 5th Underground Infrastructure & Deep Foundations Summit, Doha, Qatar, 2/6/2015.
- 3- An efficient numerical model for calculating vibration in a building from underground railway trains, International conference on vibration problems, Key Note lecture, Lisbon, Portugal, 12/9/2013.
- 4- Researches on ground-borne vibration at the University of Nottingham, Cambridge University Engineering Department, Cambridge, 23/11/2012.
- 5- Understanding the generation and propagation of vibration from railways, China Academy of Railway Sciences, Beijing, China, 24/10/2012.
- 6- Understanding the generation and propagation of vibration from railways, Beijing Jiaotong University, Beijing, China, 23/10/2012.
- 7- Modelling ground-borne vibration from railways: new developments and validation, Porto University, Porto, Portugal, 20/7/2012.
- 8- Base-isolation of buildings to reduce ground-borne vibration, Royal Flemish Engineering Society, Antwerp, Belgium, 11/5/2007.
- 9- The dynamic behaviour of railway slab tracks, Cambridge University Engineering Department, Cambridge, 18/5/2007.

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- 10- Using the PiP model for computing ground vibration from underground railways, Katholieke Universiteit Leuven, Belgium, 5/12/2006.

RESEARCH PROJECTS/CONTRACTS

1. **M.F.M. Hussein** (*Role: Lead-PI*), Framework for Railway Research, Industrial funding from Qatar Rail, value \$180k, start 15/02/2017, end 14/02/2019, Grant Ref: TBA.
2. **M.F.M. Hussein** (*Role: Lead-PI*), Investigating the effects of soil inhomogeneity and tunnel cross-sections on vibration from underground railways, Qatar University Grant, value 66,000 QAR, start 08/01/2017, end 31/12/2018, Grant Ref: QUUG-CENG-CAE-17\18-2.
3. **M.F.M. Hussein** (*Role: Primary Research Mentor*), Characterization of soil profile and properties by Spectral Analysis of Surface Waves, Value \$30k, 11/2016-11/2017, Grant Ref: UREP19-042-2-016.
4. **M.F.M. Hussein** (*Role: Research Mentor*), Lateral Design Assessment of Low and Mid-Rise Reinforced Concrete Structures in Doha, Value \$50k, 01/2016-01/2017, Grant Ref: UREP18-144-2-058. This project is led by Dr Onur Avci from Qatar University.
5. **M.F.M. Hussein** (*Role: PI*), A Unified Approach to Vibration Serviceability Assessment of Floors, QNRF 8th cycle, Value \$800k, 02/2016-01/2019, Grant Ref: NPRP8-836-2-353. This project is led by Dr Onur Avci from Qatar University with other investigators from the universities of Exeter, Kentucky, and Texas A&M in Qatar.
6. **M.F.M. Hussein** (*Role: Lead-PI*), Vibration of Civil Engineering Structures, Qatar University Students Grant, value 31,500 QAR, start 20/09/2015, end 19/09/2016, Grant Ref: QUST-CENG-SPR-14/15-22.
7. **M.F.M. Hussein** (*Role: Lead-PI*), Modelling of Rotational Stiffness of pads and its influences on dynamics of railway tracks, Qatar University Start-up Grant, value 39,270 QAR, start 21/09/2015, end 31/03/2016, Grant Ref: QUSG-CENG-CAE-14\15-4.
8. **M.F.M. Hussein** (*Role: Lead-PI*), Modelling Of Train Induced Vibration (MOTIV), EPSRC responsive mode, Value £262,000, start 1/9/2012, end: 28/2/2017, Grant Ref: EP/K005847/1.

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9. **M.F.M. Hussein** (*Role: Lead-PI*), Visiting Research Fellowship, Trinity College Cambridge University, Value £10k, from July to December 2012, Ref: CM12.95.
10. **M.F.M. Hussein** (*Role: Lead-PI*), EPSRC CASE studentship on developing holistic approach for the design of railway infrastructure, Value £88k, 10/5/2011, end: April 2016, Grant Ref: EP/J500483/1.
11. **M.F.M. Hussein** (*Role: Lead-PI*), Measurements of vibration from trams in Nottingham, the Nuffield Foundation for undergraduate student placement, 15/2/2011, Value £2k, Grant Ref: URB/39498.
12. **M.F.M. Hussein** (*Role: Lead-PI*), equipment for dynamic testing in centrifuge environment, internal divisional funding, Value £7k, 8/5/2009.

SUPERVISED PhD STUDENTS

- 1- Wenbo, Y., *Modelling vibration from surface sources and underground tunnels using centrifuge modelling*, Completed in Sep 2011, Supervisors: Hussein, M.F.M. (70%) and Marshall A. (30%).
- 2- Hamad, W., *Structure Health Monitoring*, Completed Oct 2012, Supervisors: Owen, J.S. (50%) and Hussein, M.F.M. (50%).
- 3- Carroll, S., *Human-Structure Interaction*, Completed May 2013, Supervisors: Owen, J.S. (50%) and Hussein, M.F.M. (50%).
- 4- Koroma, S., *Modelling the non-linear behaviour of railway Tracks*, Completed Dec 2013, Supervisors: Hussein, M.F.M. (75%) and Owen, J.S. (25%).
- 5- Abdelatif, A., *FE modelling of post-tensioned RC bridges*, Completed in Dec 2013, Supervisors: Owen, J.S. (50%) and Hussein, M.F.M. (50%).
- 6- Kostovasilis, D., *Noise and Vibration from curved railway tracks*, Started in Oct 2012, Supervisors: Thompson, D.J. (75%) and Hussein, M.F.M. (25%).
- 7- Jin, Q., *Vibration from underground railways*, Started in Oct 2013, Supervisors: Thompson, D.J. (75%) and Hussein, M.F.M. (25%).

CONSULTANCIES

- I am currently continuing my involvement in the EPSRC project MOTIV (see details under research projects) with an approved consultancy by the College of Engineering at Qatar University.
- I was member of the University of Southampton Consultants offering expertise for consultancies in the field of dynamics and vibration and in particular ground-borne vibration from railways.

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- I was a member of the Nottingham University Consultants - undertaken a number of Structural Engineering consultancies including lab testing and certification of design software.
- Invited to act as a consultant for a proposed research project led by Dr. Pedro Costa of the University of Porto to the FCT- Portuguese authority for scientific and technical research. The project is about modelling and experimental assessment of vibration induced by traffic in tunnels, 26/3/2012.

EXTERNAL EXAMINATION

1. Joao Barbosa, PhD dissertation, Department of Civil Engineering, Porto University, 22/9/2015.
2. Qian Wang, MPhil dissertation, Department of Engineering, University of Cambridge, 4/10/2013.
3. Nawras Hamdan, PhD dissertation, Institute of for Infrastructure & Environment, Heriot Watt University, Edinburgh, 30/7/2013.
4. David Paul Wilson, MSc dissertation, Department of Architecture, University of Cambridge, 22/6/2011.
5. Kirsty Kuo Newton, PhD dissertation, Department of Engineering, University of Cambridge, 27/9/2010.
6. Maarten Beckers, MSc dissertation, Department of Civil Engineering, Katholieke Universiteit Leuven, 24/6/2010.
7. Lars Rikse, MSc dissertation, Department of Civil Engineering, Katholieke Universiteit Leuven, 2/7/2007.

SOFTWARE DEVELOPMENT

I developed and co-developed a number of software packages for analysing practical problems in Civil Engineering. The main software application is PiP software for calculating vibration from railways. The software is developed in collaboration with Dr. Hugh Hunt of the University of Cambridge. Since the release of version 3 in September 2009, more than 300 users have downloaded and used the software, ranging from vibration and noise consultants to academics and researchers with interests in railway noise and vibration. The users are distributed geographically, with a majority from the UK, Australia, USA and China. The software has been used by consultants as well as the developers in the assessment of the vibration environment from real railway tunnels, see <www.pipmodel.com> for more details about the software.

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PUBLICATIONS

Note: the 5-year Impact Factors (IF) for the main journals I submit to are: Journal of Sound and Vibration 1.857, Engineering Structures 1.767, Soil Dynamics and Earthquake Engineering 1.302, Journal of Rail and Rapid Transport 0.743, Journal of Low Frequency Noise, Vibration and Active Control 0.41, Structural Control and Health Monitoring 1.726, Finite Elements in Analysis and Design 1.595.

Book Chapters

1. Hunt, H.E.M. and **Hussein, M.F.M.**, 2007. Ground-borne vibration transmission from road and rail systems - Prediction and control. Chapter 123 in: Malcolm J. Crocker, ed. Handbook of Noise and Vibration Control. John Wiley and Sons, New York, 1458-1469.

Journal papers

2. Ntotsios, E., Thompson, D.J., **Hussein, M.F.M.**, 2017, The effect of track load correlation on ground-borne vibration from railways, Journal of Sound and Vibration, under review.

3. Verachtert, R., Hunt, H.E.M., **Hussein, M.F.M.**, Degrande, G., 2017, Changes of perceived unevenness caused by in-track vibration countermeasures in slab track, European Journal of Mechanics - A/Solids, under review.

4. Younis, A., Avci, O., **Hussein, M.F.M.**, Davis, B., Reynolds, P., 2017, Dynamic Forces Induced on Building Floors by a Single Pedestrian: A Literature Review, the Applied Mechanics Reviews, under review.

5. Abdelatif, A.O, Owen, J.S., and **Hussein, M.F.M.**, 2017, Modelling and parametric study of the re-anchorage of ruptured tendons in bonded post-tensioned concrete, Journal of Structural Engineering, under review.

6. Koroma, S.G., Thompson, D.J., **Hussein, M.F.M.**, Ntotsios, E., 2017, A mixed space-time and wavenumber-frequency domain procedure for modelling ground vibration from surface railway tracks, Journal of Sound and Vibration, under review.

7. Kostovasilis, D., Thompson, D.J., **Hussein, M.F.M.**, 2017, On the coupling of the vertical and lateral vibration of rails, Journal of Sound and Vibration, accepted for publication.

8. **Hussein, M.F.M.** and Costa. P.A., 2017, The effect of end bearings on the dynamic behavior of floating-slab tracks with discrete slab units, International Journal of Rail Transportation, 5, 1, 38-46

9. Brookes, D., Hamad, W.I., Talbot, J.P., Hunt, H.E.M., **Hussein, M.F.M.**, 2016, On the dynamic interaction effects of railway tunnels: Crossrail and the Grand Central Recording Studios, Journal of Rail and Rapid Transit, 1-18.

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10. Thompson, D., Jiang, J., Toward, M.G.R, **Hussein, M.F.M.**, Ntotsios, E., Dickmans, A., Coulier, P., Lombaert, G. and Degrande, G. 2016, Reducing railway-induced ground-borne vibration by using open trenches and soft-filled barriers, *Soil Dynamics and Earthquake Engineering*, 88, 45-59.
11. Thompson, D.J., Jiang, J., Toward, M.G.R., **Hussein, M.F.M.**, Dijckmans, A., Coulier, P., Degrande, G., Lombaert, G., 2015, Mitigation of railway-induced vibrations by using subgrade stiffening. *Soil Dynamics and Earthquake Engineering*, 79(part A), 89-103.
12. Koroma, S.G., **Hussein, M.F.M.**, Owen, J.S., 2015, The effects of preload and nonlinearity on the vibration of railway tracks under a harmonic load, *Journal of Low Frequency Noise, Vibration and Active Control*, 34, 3, 289–306.
13. Hamad, W.I., Owen, J.S., **Hussein, M.F.M.**, 2015, Modelling the degradation of vibration characteristics of reinforced concrete beams due to flexural damage, *Structural Control and Health Monitoring*, 22, 6, 939–967.
14. Abdelatif, A.O, Owen, J.S., and **Hussein, M.F.M.**, 2015, Modelling the prestress transfer in pre-tensioned concrete elements, *Finite Elements in Analysis and Design*, 94, 47–63.
15. Kuo, K.A., Jones, S. W. Jones, **Hussein, M.F.M.**, Hunt, H.E.M., 2015, Recent developments in the Pipe-in-Pipe model for underground-railway vibration predictions, *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, 126, 2015, 321-328.
16. **Hussein, M.F.M.**, Hunt, H.E.M., Kuo, K.A., Costa, P.A., and Barbosa, J., 2015, The use of sub-modelling technique to calculate vibration in buildings from underground railways, *Journal of Rail and Rapid Transit*, 229,3, 303-314.
17. **Hussein, M.F.M.**, Francois, S. , Schevenels, M., Hunt, H.E.M., Talbot, J.P., Degrande, G., 2014, The fictitious force method for efficient calculation of vibration from a tunnel embedded in a multi-layered half-space, *Journal of Sound and Vibration*, 333, 25, 6996–7018.
18. Carroll, S.P., Owen, J.S. and **Hussein, M.F.M.**, 2014, Experimental identification of the lateral human-structure interaction mechanism and assessment of the inverted-pendulum biomechanical model, *Journal of Sound and Vibration*, 333, 22, 5865–5884.
19. Koroma, S.G., **Hussein, M.F.M.**, Owen, J.S., 2014, Vibration of a beam on continuous elastic foundation with nonhomogeneous stiffness and damping under a harmonically excited mass, *Journal of Sound and Vibration*, 333,9, 2571–2587.
20. Yang, W., **Hussein, M.F.M.**, Cox C., and Marshall A., 2013. Centrifuge and numerical modelling of ground-borne vibration from an underground tunnel, *Soil Dynamics and Earthquake Engineering*, 51, 23-34.

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21. Hamad, W.I., Owen, J.S., **Hussein, M.F.M.**, 2013, The sensitivity of vibration characteristics of reinforced concrete beams under incremental static and cyclic loading, *Key Engineering Materials*, 569-570, 327-334..
22. Abdelatif, A.O, Owen, J.S., and **Hussein, M.F.M.**, 2013, Re-anchorage of a Ruptured Tendon in Bonded Post-Tensioned Concrete Beams: Model validation, *Key Engineering Materials*, 569-570, 302-309.
23. Hamad, W.I., Owen, J.S., **Hussein, M.F.M.**, 2013, An efficient approach of modelling the flexural cracking behaviour of un-notched plain concrete prisms subject to monotonic and cyclic loading, *Engineering Structures*, 51, 36-50.
24. Carroll, S.P., Owen, J.S., and **Hussein, M.F.M.**, 2013. Reproduction of lateral ground reaction forces from visual marker data and analysis of balance response while walking on a laterally oscillating deck, *Engineering Structures*, *Engineering Structures*, 49, 1034-1047.
25. Carroll, S.P., Owen, J.S., and **Hussein, M.F.M.**, 2013. A coupled biomechanical/discrete element crowd model of crowd-bridge dynamic interaction & application to the Clifton Suspension Bridge, *Engineering Structures*, 49, 58–75.
26. Yang, W., **Hussein, M.F.M.**, Marshall, A., and Cox, C., 2013. Centrifuge and numerical modelling of ground-borne vibration from surface sources, *Soil Dynamics and Earthquake Engineering*, 44, 78–89.
27. Jones, S., Kuo, K.A., **Hussein, M.F.M.**, and Hunt, H.E.M., 2012. Prediction uncertainties and inaccuracies resulting from common assumptions in modelling vibration from underground railways, *Journal of Rail and Rapid Transport*, 226(5), 501-512.
28. Kuo, K.A., **Hussein, M.F.M.** and Hunt, H.E.M., 2012. The effects of a second tunnel on the propagation of ground-borne vibration from an underground railway, *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, 118:307-314.
29. Carroll, S.P., Owen, J.S., and **Hussein, M.F.M.**, 2012. Modelling crowd-bridge dynamic interaction with a discretely defined crowd, *Journal of Sound and Vibration*, 331(11), 2685-2709.
30. Hamad, W.I., Owen, J.S., and **Hussein, M.F.M.**, 2011. A flexural crack model for damage detection in reinforced concrete structures, *Journal of Physics, Conference Series*, 305(1), 012037.
31. Kuo, K.A., Hunt, H.E.M. and **Hussein, M.F.M.**, 2011. The effect of a twin tunnel on the propagation of ground-borne vibration from an underground railway, *Journal of Sound and Vibration*, 330(25), 6203-6222.
32. Jones, S., **Hussein, M.F.M.**, and Hunt, H.E.M., 2010. Use of PiP to investigate the effect of a free surface on ground vibration due to underground railways, *Acoustics Australia*, 38(1), 20-24.

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33. **Hussein, M.F.M.**, and Hunt, H.E.M., 2009. A computationally efficient software application for calculating vibration from underground railways, *Journal of Physics, Conference Series*, 181(1), 012057.
34. **Hussein, M.F.M.** and Hunt, H.E.M., 2009. A numerical model for calculating vibration due to a harmonic moving load on a floating-slab track with discontinuous slabs in an underground railway tunnel, *Journal of Sound and Vibration*, 321(1-2), 363-374.
35. **Hussein, M.F.M.**, Hunt, H.E.M., Rikse, L., Gupta, S., Degrande, G., Talbot, J.P., Francois, S. and Schevenels, M., 2008. Using the PiP model for fast calculation of vibration from a railway tunnel in a multi-layered half-space, *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, 99/2008, 136-142.
36. **Hussein, M.F.M.** and Hunt, H.E.M., 2007. A numerical model for calculating vibration from a railway tunnel embedded in a full-space. *Journal of Sound and Vibration*, 305(3), 401-431.
37. Gupta, S., **Hussein, M.F.M.**, Degrande, G., Hunt, H.E.M. and Clouteau, D., 2007. A comparison of two numerical models for the prediction of vibrations from underground railway traffic. *Soil Dynamics and Earthquake Engineering*, 27(7), 608-624.
38. **Hussein, M.F.M.** and Hunt, H.E.M., 2006. Modelling of Floating-Slab track with Discontinuous Slab Part I: Response to Oscillating Moving Loads. *Journal of Low Frequency Noise, Vibration and Active Control*, 25(1), 23-40.
39. **Hussein, M.F.M.** and Hunt, H.E.M., 2006. Modelling of floating-slab track with discontinuous slab Part 2: response to moving trains. *Journal of Low Frequency Noise, Vibration and Active Control*, 25(2), 111-118.
40. **Hussein, M.F.M.** and Hunt, H.E.M., 2006. Modelling of floating-slab tracks with continuous slabs under oscillating moving loads. *Journal of Sound and Vibration*, 297(1-2), 37-54.
41. **Hussein, M.F.M.** and Hunt, H.E.M., 2006. A power flow method for evaluating vibration from underground railways. *Journal of Sound and Vibration*, 293(3-5), 667-679.

Conference papers

42. **Hussein, M.F.M.** and Costa. P.A., 2016, The effect of end bearings on the dynamic behavior of floating-slab tracks with discrete slab units, In ICSV23: 23rd International Congress on Sound and Vibration, Athens, Greece, 10 - 14 July.
43. Abdelatif, A.O, Owen, J.S., and **Hussein, M.F.M.**, 2016, Rapid assessment of bonded post-tensioned concrete beams, the 1st conference on civil engineering, Merowe, Sudan, 13th-15th Dec.

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44. Tehrani, M.G., **Hussein, M.F.M.**, 2015, Energy harvesting from moving loads on a beam with elastic foundation, In: International Conference on Engineering Vibration (ICoEV2015), Ljubljana, Slovenia, 7-10 September.
45. Kostovasilis, D., Thompson, D.J., **Hussein, M.F.M.**, 2015, The effect of vertical-lateral coupling of rails including initial curvature, In: the 22nd International Congress on Sound and Vibration (ICSV22), Florence, Italy, 12 to 16 July.
46. Jin, Q., Thompson, D.J., Lurcock, D., Toward, M., Ntotsios, E., Koroma, S., **Hussein, M.F.M.**, 2015, Experimental validation of a numerical model for the ground vibration from trains in tunnels, In: the 10th European Congress and Exposition on Noise Control Engineering (EuroNoise), Maastricht, The Netherlands, May 31st to June 3rd.
47. Hamad, W.I., Ntotsios, E., Hunt, H.E.M. **Hussein, M.F.M.**, Thompson, D.J., and Talbot, J.P., 2015, Modelling the dynamic pile-soil-pile interaction in a multi-layered half-space, In: the 10th European Congress and Exposition on Noise Control Engineering (EuroNoise), Maastricht, The Netherlands, May 31st to June 3rd.
48. Ntotsios, E., Thompson, D.J., and **Hussein, M.F.M.**, 2015, Effect of rail unevenness correlation on the prediction of ground-borne vibration from railways, In: the 10th European Congress and Exposition on Noise Control Engineering (EuroNoise), Maastricht, The Netherlands, May 31st to June 3rd.
49. Koroma, S.G., Thompson, D.J., **Hussein, M.F.M.**, and Evangelos, N., 2015, A mixed space-time and wavenumber domain model for predicting vibration from railway tracks, In: the 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (Compdyn), Crete Island, Greece, 25–27 May.
50. Ntotsios, E., Hamad, W.I., Thompson, D.J., **Hussein, M.F.M.**, Hunt, H.E.M., Talbot, J.P., 2015, Predictions of the dynamic response of piled foundations in a multi-layered halfspace due to inertial and railway induced loadings, In: the 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (Compdyn), Crete Island, Greece, 25–27 May.
51. Hamad, W.I., Hunt, H.E.M., Talbot, J.P., **Hussein, M.F.M.**, Thompson, D.J., 2015, The dynamic interaction of twin tunnels embedded in a homogeneous half-space, In: the 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (Compdyn), Crete Island, Greece, 25–27 May.
52. Ntotsios, E., Koroma, S.G., Hamad, W.I., Thompson, D.J., Hunt, H. E.M., Talbot, J.P., **Hussein, M.F.M.**, 2015, Modelling train induced vibration, In: IMechE Stephenson conference, London UK, 21-23 April.
53. Koroma, S.G., **Hussein, M.F.M.**, Thompson, D.J., and Evangelos, N., 2014, The effect of non-linearity of railway tracks on ground-borne vibration. In ICSV21: 21st International Congress on Sound and Vibration, Beijing China, 13 - 17 July.

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54. Jiang, J. Toward, M., Dijckmans, A., Thompson, D.J., Degrande, G., Lombaert, G., **Hussein, M.F.M.**, 2014, The influence of soil conditions on railway induced ground-borne vibration and relevant mitigation measures, In ICSV21: 21st International Congress on Sound and Vibration, Beijing Shi, 13 - 17 July.
55. Verachtert R., Hunt, H.E.M., **Hussein, M.F.M.**, Degrande, G., 2014, Changes in railway unevenness after the installation of in-track vibration countermeasures, In: the 9th International Conference on Structural Dynamics (EURODYN), Porto, Portugal, 30th June-2nd July.
56. Hamad, W.I., Hunt, H.E.M., **Hussein, M.F.M.**, and Talbot, J.P., 2014, Tunnel-soil-pile interaction in the prediction of vibration from underground, In: the 9th International Conference on Structural Dynamics (EURODYN), Porto, Portugal, 30th June-2nd July.
57. Kostovasilis, D., **Hussein, M.F.M.**, , Thompson, D.J., 2014, A holistic approach for the design and assessment of railway tracks, In: the 9th International Conference on Structural Dynamics (EURODYN), Porto, Portugal, 30th June-2nd July.
58. Ntotsios, E., **Hussein, M.F.M.**, Thompson, D.J., 2014, A comparison between different approaches for calculating Power Spectral Densities of ground-borne vibration from railway trains, In: the 9th International Conference on Structural Dynamics (EURODYN), Porto, Portugal, 30th June-2nd July.
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