

Curriculum vitae Prof. Dr. Magd ABDEL WAHAB**PERSONAL INFORMATION**

- Family name, First name: Abdel Wahab, Magd
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- Scopus Author ID: [7102582536](#)
- Google Scholar: [Prof. Dr. Magd Abdel Wahab](#)
- ResearchGate: [Magd Abdel Wahab](#)
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**SUMMARY OF ALL PUBLICATIONS UP TO January 2020**

The following classification is according to Ghent University Academic Bibliography (total number of publications 464 including some types that are not mentioned in the table below):

<https://biblio.ugent.be/person/802000618513>

	Journal article		Book			Conference proceedings		
	A1	A2	B1	B2	B3	P1	C1	C3
Total	201	19	3	6	22	42	118	27

A1: Articles included in one of the ISI Web of Science databases. A2: Article in a scientific journal with peer review, not included in (A1). B1: Book as author or co-author. B2: Chapter in a book as author or co-author. B3: Book as editor or co-editor. P1: Proceedings included in one of the ISI Web of Science databases. C1: Articles published in proceedings of scientific conferences, not included in (A1) or (P1). C3: conference or meeting abstracts, unpublished lectures, posters, etc.

SUMMARY OF H-INDEX AND CITATIONS AS PER JANUARY 2020

	WoS	Scopus	Google Scholar	
			All	Since 2015
Citations	4845	6032	7928	5539
H-index	39	45	50	42

EDUCATION

- 2008 **DSc**, Doctor of Science, Department of Aerospace and Mechanical Engineering, University of Surrey, UK
- 1995 **PhD**, Doctor in Engineering, Department of Civil Engineering, Division of Structural Mechanics, K.U. Leuven, Belgium
- 1991 **MSc**, Master of Science, Department of Civil Engineering, Cairo University, Egypt

CURRENT POSITION(S)

- Professor and chair of applied mechanics, Faculty of Engineering and Architecture, Ghent University, Belgium
- Adjunct Professor, Ton Duc Thang University, Vietnam

- Visiting Professor, Duy Tan University, Vietnam
- Adjunct Professor, HUTECH University, Vietnam
- Adjunct Professor, Nanjing Tech University, China

PREVIOUS POSITIONS

- 2008 – 2009 Professor of Civil Engineering, Xios University College Limburg, Belgium
- 2003 – 2008 Senior Lecturer, Aerospace & Mechanical Engineering, University of Surrey, UK
- 1999 – 2003 Lecturer, Mechanical & Materials Engineering, University of Surrey, UK
- 1995 – 1999 Post-doctoral researcher, Department of Civil Engineering, KU Leuven, Belgium
- 1991 – 1995 PhD researcher, Department of Civil Engineering, KU Leuven, Belgium

FELLOWSHIPS AND AWARDS

- Medal of honour 2015, national (Belgium) orders award in recognition of outstanding teaching and professional activities
- Egyptian Society & Student Union award 2008, University of Surrey, Guildford, Surrey, UK
- SCEPTRe Fellowship award 2007. This scheme, The Surrey Centre for Excellence in Professional Training and Education, rewards excellence and promote excellent education that enhances the learning and experiences of students
- University of Surrey Teaching and Learning Prize 2005. This scheme acknowledges staffs who are innovative and achieve a high standard of excellence in their teaching activities.
- PhD Scholarship (1991 – 1995), Department of Civil Engineering, KU Leuven, Belgium

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS (2019)

- Completed PhD degrees: 19
- Current supervision of PhD students: 14
- Completed post-doctoral fellows: 3
- Current supervision of post-doctoral fellows: 2

TEACHING ACTIVITIES

- 1995 – 1999: Assistant lecturer, Finite Element Analysis, KU Leuven, Belgium
- 1999 – 2008: Main lecturer in charge, Dynamics and Vibration, University of Surrey, UK
- 2008 – 2009: Main lecturer in charge, Reinforced Concrete/Mechanics of Materials, Xios University College Limburg, Belgium
- 2008 – 2009: Main lecturer in charge, Kinematics/Finite Element Analysis, Ghent University, Belgium

INSTITUTIONAL RESPONSIBILITIES

- 2009 – : Head of Finite Element Modelling Research Group, Ghent University,
http://www.finite_element_research.ugent.be/
- 2009 – : Member of department committee, faculty examination committee, faculty research committee and faculty teaching committee at Ghent University, Belgium.
- 1999 – 2008: Member of faculty, research and examination committees at Surrey University,

UK

COMMISSIONS OF TRUST

- 2001 – : Examiner of several PhD theses in UK, India, Malaysia, Spain and Belgium
- 2005 – : Evaluator of research proposals for STW NOW Netherlands, EPSRC UK
- 2013 – : Evaluator of Promotion for Professorships in UK and China

EDITOR IN CHIEF AND CO-EDITORSHIP

- Editor of more than **22** books, special issues and conference proceedings.
- Editor of conference proceedings in Springer and IOP publisher: International Conference of Fracture Fatigue and Wear (FFW), International Conference of Damage Assessment of Structures (DAMAS) and International Conference of Numerical Modelling in Engineering (NME).
- Lead Guest Editor: special issue Advances in finite element analysis for computational mechanics, Advances in Mechanical Engineering, SAGE publications Inc.
- Guest Editor: special issue Damage Models and Assessment Methods, Shock and Vibration, Hindawi Publishing Corporation.

AWARDED RESEARCH GRANTS

Contributions in total research awards of around 5 million Euros.

On-going Grants

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of the PI</i>
Development and Prediction of Coupled Interactions in Material Durability Testing	IWT – Belgian government agency for Innovation by Science and Technology	2,620,050	2014 - 2018	PI of WP5: Improved Residual Stress prediction of Welded steel components for fatigue, corrosion and abrasion assessment
Numerical modelling of fracture fatigue and wear	CWO, Faculty of Engineering and Architecture, Ghent University	25,000	2013-2016	PI
Multi-analysis of fretting fatigue using physical and virtual experiments	Research Foundation Flanders (FWO), The Luxembourg National Research Fund (FNR) and Slovenian Research Agency (ARRS)	740,000	2016-2019	PI, coordinator and chair of steering committee
An innovative solution to protect Vietnamese	VLIRUOS, The Flemish Interuniversity Council -	300,000	2017-2021	PI, coordinator

coastal riverbanks from floods and erosion	University Development			and chair of steering committee
Damage assessment tools for Structural Health Monitoring of Vietnamese infrastructures	VLIRUOS, The Flemish Interuniversity Council - University Development	280,000	2018-2022	PI, coordinator and chair of steering committee
PRINT-AM Predictable Integrity of Large Scale Additive Manufactured Components through Intelligent Printing Strategies	IWT - Belgian government agency for Innovation by Science and Technology	1,298,510	2019-2022	PI of Task I.1: Repair or reproduction of existing structures (SBO)

Previous grants

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of the PI</i>
Numerical modelling techniques for fretting fatigue crack initiation and propagation	BOF, Special Research Fund Ghent University	193,000	2010-2015	PI
Structural Adhesive Bonding of Thick Components for Advanced Engineering Design (SABCAD)	DTI-BAs-Airbus, UK	660,000	2006-2009	Co-investigator
Durability of adhesive bonding	QinetiQ-MOD ITT, Ministry of Defense, UK	95,000	2002-2005	Co-investigator
The failure of adhesively bonded joints under service loading conditions	EPSRC-JREI, UK	33,800	2000-2003	Co-investigator

ORGANISATION OF INTERNATIONAL SCIENTIFIC CONFERENCES

➤ Chairing and organising several international conferences including:

- Fracture Fatigue and Wear (FFW), annual since 2014 – present: <http://www.ffwconf.org/>
- Numerical Modelling in Engineering (NME), annual since 2018 – present, <http://www.nmeconf.org/>
- International Conference on Metals and Alloys (CMA), annual since 2019 – present, <http://www.cmaconf.org/>
- Structural Damage Modelling and Assessment (SDMA), annual since 2020, <http://www.sdmaconf.org/>
- Damage Assessment of Structures (DAMAS 2015, 2017, 2019).

ALL PUBLICATIONS - A1, P1 and C1**INTERNATIONAL JOURNAL ARTICLES – A1**

1. Rudawska A, Abdel Wahab M, Müller M. Effect of ageing process on mechanical properties of adhesive tubular butt joints in aqueous environment. *INTERNATIONAL JOURNAL OF ADHESION AND ADHESIVES*. 2020;96.
2. Resende Pereira K de F, Abdel Wahab M. Fretting fatigue lifetime estimation using a cyclic cohesive zone model. *TRIBOLOGY INTERNATIONAL*. 2020;141.
3. Deng Q, Bhatti NA, Yin X, Abdel Wahab M. The effect of a critical micro-void defect on fretting fatigue crack initiation in heterogeneous material using a multiscale approach. *TRIBOLOGY INTERNATIONAL*. 2020;141.
4. Vu HT, Le TC, Nguyen-Xuan H, Abdel Wahab M. An equal-order mixed polygonal finite element for two-dimensional incompressible stokes flows. *EUROPEAN JOURNAL OF MECHANICS B-FLUIDS*. 2020;79:92–108.
5. Tran H, He L, Reynders E, Khatir S, Le-Xuan T, De Roeck G, et al. An efficient approach to model updating for a multispan railway bridge using orthogonal diagonalization combined with improved particle swarm optimization. *JOURNAL OF SOUND AND VIBRATION*. 2020;476.
6. Wang S, Yue T, Abdel Wahab M. Multiscale analysis of the effect of debris on fretting wear process using a semi-concurrent method. *CMC - COMPUTERS MATERIALS & CONTINUA*. 2020;62(1):17–35.
7. Papagianni D, Abdel Wahab M. Multi-scale analysis of fretting fatigue in heterogeneous materials using computational homogenization. *CMC - COMPUTERS MATERIALS & CONTINUA*. 2020;62(1):79–97.
8. Ni J, Zhuang X, Abdel Wahab M. Review on the prediction of residual stress in welded steel components. *CMC - COMPUTERS MATERIALS & CONTINUA*. 2020;62(2):495–523.
9. Bozyigit B, Yesilce Y, Abdel Wahab M. Single variable shear deformation theory for free vibration and harmonic response of frames on flexible foundation. *ENGINEERING STRUCTURES*. 2020;208.
10. Bozyigit B, Yesilce Y, Abdel Wahab M. Transfer matrix formulations and single variable shear deformation theory for crack detection in beam-like structures. *STRUCTURAL ENGINEERING AND MECHANICS*. 2020;73(2):109–21.
11. Khatir S, Boutchicha D, Le TC, Ngoc Hoa T, Nguyen TN, Abdel Wahab M. Improved ANN technique combined with Jaya algorithm for crack identification in plates using XIGA and experimental analysis. *THEORETICAL AND APPLIED FRACTURE MECHANICS*. 2020;107.
12. Khatir S, Khatir T, Boutchicha D, Le Thanh C, Tran H, Bui TQ, et al. An efficient hybrid TLBO-PSO-ANN for fast damage identification in steel beam structures using IGA. *SMART STRUCTURES AND SYSTEMS*. 2020;25(5):605–17.
13. Vu HT, Le-Thanh C, Nguyen-Xuan H, Abdel Wahab M. Equal-order polygonal analysis for fluid computation in curved domain. *INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS*. 2020;
14. Bendada A, Boutchicha D, Khatir S, Magagnini E, Capozucca R, Abdel Wahab M. Mechanical characterization of an epoxy panel reinforced by date palm petiole particle. *STEEL AND COMPOSITE STRUCTURES*. 2020;35(5):627–34.
15. Zenzen R, Khatir S, Belaidi I, Le Thanh C, Abdel Wahab M. A modified transmissibility indicator and Artificial Neural Network for damage identification and quantification in laminated composite structures. *COMPOSITE STRUCTURES*. 2020;248.

16. Resende Pereira K de F, V. Vanegas-Useche L, Abdel Wahab M. Aspects of fretting fatigue finite element modelling. *CMC-COMPUTERS MATERIALS & CONTINUA*. 2020;64(1):97–144.
17. Nguyen-Le DH, Tao QB, Nguyen V-H, Abdel Wahab M, Nguyen-Xuan H. A data-driven approach based on long short-term memory and hidden Markov model for crack propagation prediction. *ENGINEERING FRACTURE MECHANICS*. 2020;235.
18. Nguyen KD, E.Augarde C, Coombs WM, Nguyen-Xuan H, Abdel Wahab M. Non-conforming multipatches for NURBS-based finite element analysis of higher-order phase-field models for brittle fracture. *ENGINEERING FRACTURE MECHANICS*. 2020;235.
19. Vu HT, Nguyen-Xuan H, Le TC, Abdel Wahab M. Stabilization for equal-order polygonal finite element method for high fluid velocity and pressure gradient. *CMC - COMPUTERS MATERIALS & CONTINUA*. 2020;62(3):1109–23.
20. Tran H, Khatir S, De Roeck G, Nguyen L, Bui TT, Abdel Wahab M. An efficient approach for model updating of a large-scale cable-stayed bridge using ambient vibration measurements combined with a hybrid metaheuristic search algorithm. *SMART STRUCTURES AND SYSTEMS*. 2020;25(4):487–99.
21. Nguyen Ngoc H, Nguyen-Xuan H, Abdel Wahab M. A numerical investigation on the use of pervious concrete for seawall structures. *OCEAN ENGINEERING*. 2020;198.
22. Djafri M, Bouchetara M, Khatir T, Khatir S, Abdel Wahab M. Calculation of the braking temperature on a brake disc of light passenger aircraft using FEM and Newcomb models. *INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS*. 2020;
23. Bozyigit B, Yesilce Y, Abdel Wahab M. Free vibration and harmonic response of cracked frames using a single variable shear deformation theory. *STRUCTURAL ENGINEERING AND MECHANICS*. 2020;74(1):33–54.
24. Bhatti NA, Pereira K, Abdel Wahab M. Effect of stress gradient and quadrant averaging on fretting fatigue crack initiation angle and life. *TRIBOLOGY INTERNATIONAL*. 2019;131:212–21.
25. Khatir S, Abdel Wahab M. Fast simulations for solving fracture mechanics inverse problems using POD-RBF XIGA and Jaya algorithm. *ENGINEERING FRACTURE MECHANICS*. 2019;205:285–300.
26. Mansouri L, Djebbar A, Khatir S, Abdel Wahab M. Effect of hygrothermal aging in distilled and saline water on the mechanical behaviour of mixed short fibre / woven composites. *COMPOSITE STRUCTURES*. 2019;207:816–25.
27. Gillich G-R, Furdui H, Abdel Wahab M, Korca Z-I. A robust damage detection method based on multi-modal analysis in variable temperature conditions. *MECHANICAL SYSTEMS AND SIGNAL PROCESSING*. 2019;115:361–79.
28. Rudawska A, Abdel Wahab M. The effect of cataphoretic and powder coatings on the strength and failure modes of EN AW-5754 aluminium alloy adhesive joints. *INTERNATIONAL JOURNAL OF ADHESION AND ADHESIVES*. 2019;89:40–50.
29. Wang X, Zhang W, Ni J, Zhang T, Gong J, Abdel Wahab M. Quantitative description between pre-fatigue damage and residual tensile properties of P92 steel. *MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING*. 2019;744:415–25.
30. Wang X, Zhang W, Zhang T, Gong J, Abdel Wahab M. A new empirical life prediction model for 9–12%Cr steels under low cycle fatigue and creep fatigue interaction loadings. *METALS*. 2019;9(2).
31. Khatir S, Abdel Wahab M, Boutchicha D, Khatir T. Structural health monitoring using modal

strain energy damage indicator coupled with teaching-learning-based optimization algorithm and isogeometric analysis. *JOURNAL OF SOUND AND VIBRATION*. 2019;448:230–46.

32. Khatir S, Tiachacht S, Le TC, Bui TQ, Abdel Wahab M. Damage assessment in composite laminates using ANN-PSO-IGA and Cornwell indicator. *COMPOSITE STRUCTURES*. 2019;230.

33. Le TC, Ferreira AJM, Abdel Wahab M. A refined size-dependent couple stress theory for laminated composite micro-plates using isogeometric analysis. *THIN-WALLED STRUCTURES*. 2019;145.

34. Phung Van P, Thai CH, Nguyen-Xuan H, Abdel Wahab M. An isogeometric approach of static and free vibration analyses for porous FG nanoplates. *EUROPEAN JOURNAL OF MECHANICS A-SOLIDS*. 2019;78.

35. V. Vanegas-Useche L, Abdel Wahab M, A. Parker G. Numerical analysis of tilted cutting and F128 brushes. *CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES*. 2019;121(1):23–47.

36. Yue T, Abdel Wahab M. A review on fretting wear mechanisms, models and numerical analyses. *CMC - COMPUTERS MATERIALS & CONTINUA*. 2019;59(2):405–32.

37. Kosec G, Slak J, Depolli M, Trobec R, Resende Pereira K de F, Tomar S, et al. Weak and strong form meshless methods for linear elastic problem under fretting contact conditions. *TRIBOLOGY INTERNATIONAL*. 2019;138:392–402.

38. Vu HT, Le TC, Nguyen-Xuan H, Abdel Wahab M. A high-order mixed polygonal finite element for incompressible Stokes flow analysis. *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING*. 2019;356:175–98.

39. Phung Van P, Thai CH, Nguyen-Xuan H, Abdel Wahab M. Porosity-dependent nonlinear transient responses of functionally graded nanoplates using isogeometric analysis. *COMPOSITES PART B-ENGINEERING*. 2019;164:215–25.

40. Alghazoul R, Makki A, Abdel Wahab M. Improvement of flat surfaces quality of aluminum alloy 6061-O by a proposed trajectory of ball burnishing tool. *CMC-COMPUTERS MATERIALS & CONTINUA*. 2019;61(2):555–68.

41. Vanegas-Useche L, Abdel Wahab M, A. Parker G. Dynamic analysis of a horizontal oscillatory cutting brush. *CMC-COMPUTERS MATERIALS & CONTINUA*. 2019;60(3):871–93.

42. Dang B-L, Nguyen Ngoc H, Hoang TD, Nguyen-Xuan H, Abdel Wahab M. Numerical investigation of novel prefabricated hollow concrete blocks for stepped-type seawall structures. *ENGINEERING STRUCTURES*. 2019;198.

43. Mansouri L, Djebbar A, Khatir S, Ali HT, Behtani A, Abdel Wahab M. Static and fatigue behaviors of short glass fiber-reinforced polypropylene composites aged in a wet environment. *JOURNAL OF COMPOSITE MATERIALS*. 2019;53(25):3629–47.

44. Nguyen D, Bui T, De Roeck G, Abdel Wahab M. Damage detection in Ca Non Bridge using transmissibility and artificial neural networks. *STRUCTURAL ENGINEERING AND MECHANICS*. 2019;71(2):175–83.

45. Tran H, Khatir S, De Roeck G, Bui-Tien T, Abdel Wahab M. An efficient artificial neural network for damage detection in bridges and beam-like structures by improving training parameters using cuckoo search algorithm. *ENGINEERING STRUCTURES*. 2019;199.

46. Le TC, Tran LV, Vu HT, Nguyen-Xuan H, Abdel Wahab M. Size-dependent nonlinear analysis and damping responses of FG-CNTRC micro-plates. *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING*. 2019;353:253–76.

47. Le TC, Tran LV, Vu HT, Abdel Wahab M. The size-dependent thermal bending and buckling analyses of composite laminate microplate based on new modified couple stress theory and isogeometric analysis. *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING*. 2019;350:337–61.
48. Liu W, Zhou Y, Zhu X, Meng X, Liu M, Abdel Wahab M. Numerical modelling of bottom-hole rock in underbalanced drilling using thermo-poroelastoplasticity model. *STRUCTURAL ENGINEERING AND MECHANICS*. 2019;69(5):537–45.
49. Le TC, Tran LV, Bui TQ, Nguyen HX, Abdel Wahab M. Isogeometric analysis for size-dependent nonlinear thermal stability of porous FG microplates. *COMPOSITE STRUCTURES*. 2019;221.
50. Nguyen Ngoc H, Phung Van P, Dang B-L, Nguyen-Xuan H, Abdel Wahab M. Static and dynamic analyses of three-dimensional hollow concrete block revetments using polyhedral finite element method. *APPLIED OCEAN RESEARCH*. 2019;88:15–28.
51. Khatir S, Abdel Wahab M. A computational approach for crack identification in plate structures using XFEM, XIGA, PSO and Jaya algorithm. *THEORETICAL AND APPLIED FRACTURE MECHANICS*. 2019;103.
52. Zhou Y-L, Maia N, Abdel Wahab M. Damage detection using transmissibility compressed by principal component analysis enhanced with distance measure. *JOURNAL OF VIBRATION AND CONTROL*. 2018;24(10):2001–19.
53. Phung Van P, Le TC, Nguyen-Xuan H, Abdel Wahab M. Nonlinear transient isogeometric analysis of FG-CNTRC nanoplates in thermal environments. *COMPOSITE STRUCTURES*. Elsevier; 2018;201:882–92.
54. Vu HT, Phung Van P, Nguyen-Xuan H, Abdel Wahab M. A polytree-based adaptive polygonal finite element method for topology optimization of fluid-submerged breakwater interaction. *COMPUTERS & MATHEMATICS WITH APPLICATIONS*. Elsevier; 2018;76(5):1198–218.
55. Ni J, Wang X, Gong J, Abdel Wahab M. A multi-phase model for transformation plasticity using thermodynamics-based metallurgical algorithm. *INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES*. Elsevier; 2018;148:135–48.
56. Roumaïssa Z, Belaidi I, Khatir S, Abdel Wahab M. A damage identification technique for beam-like and truss structures based on FRF and Bat Algorithm. *COMPTES RENDUS MECANIQUE*. 2018;346(12):1253–66.
57. Tiachacht S, Bouazzouni A, Khatir S, Abdel Wahab M, Behtani A, Capozucca R. Damage assessment in structures using combination of a modified Cornwell indicator and genetic algorithm. *ENGINEERING STRUCTURES*. 2018;177:421–30.
58. Vanegas-Useche L, Abdel Wahab M, Parker G. Determination of the normal contact stiffness and integration time step for the finite element modeling of bristle-surface interaction. *CMC-COMPUTERS MATERIALS & CONTINUA*. 2018;56(1):169–84.
59. Alali H, Braeckman L, Van Hecke T, Abdel Wahab M. Shift work and occupational accident absence in Belgium : findings from the sixth European Working Condition Survey. *INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH*. 2018;15(9).
60. Khatir S, Brahim B, Capozucca R, Abdel Wahab M. Damage detection in CFRP composite beams based on vibration analysis using proper orthogonal decomposition method with radial basis functions and cuckoo search algorithm. *COMPOSITE STRUCTURES*. Elsevier BV; 2018;187:344–53.
61. Ni J, Vande Voorde J, Antonissen J, Abdel Wahab M. Dependency of phase transformation on the prior austenite grain size and its influence on welding residual stress of S700 steel. *WELDING IN*

THE WORLD. 2018;62(4):699–712.

62. Wang X, Zhang W, Gong J, Abdel Wahab M. Low cycle fatigue and creep fatigue interaction behavior of 9Cr-0.5Mo-1.8W-V-Nb heat-resistant steel at high temperature. *JOURNAL OF NUCLEAR MATERIALS*. Elsevier; 2018;505:73–84.

63. Djafri M, Bouchetara M, Busch C, Khatir S, Khatir T, Weber S, et al. Influence of thermal fatigue on the wear behaviour of brake discs sliding against organic and semi-metallic friction materials. *TRIBOLOGY TRANSACTIONS*. 2018;61(5):861–8.

64. Khatir S, Dekemele K, Loccuffier M, Khatir T, Abdel Wahab M. Crack identification method in beam-like structures using changes in experimentally measured frequencies and Particle Swarm Optimization. *COMPTEs RENDUS MECANIQUE*. 2018;346(2):110–20.

65. Thai CH, Ferreira AJM, Abdel Wahab M, Nguyen-Xuan H. A moving Kriging meshfree method with naturally stabilized nodal integration for analysis of functionally graded material sandwich plates. *ACTA MECHANICA*. 2018;229(7):2997–3023.

66. Ni J, Wang X, Gong J, Abdel Wahab M. Thermal, metallurgical and mechanical analysis of circumferentially multi-pass welded P92 steel pipes. *INTERNATIONAL JOURNAL OF PRESSURE VESSELS AND PIPING*. Elsevier; 2018;165:164–75.

67. Resende Pereira K de F, Bhatti NA, Abdel Wahab M. Prediction of fretting fatigue crack initiation location and direction using cohesive zone model. *TRIBOLOGY INTERNATIONAL*. Elsevier; 2018;127:245–54.

68. Bhatti NA, Abdel Wahab M. Fretting fatigue crack nucleation: a review. *TRIBOLOGY INTERNATIONAL*. Elsevier; 2018;121:121–38.

69. Bhatti NA, Abdel Wahab M. Fretting fatigue damage nucleation under out of phase loading using a continuum damage model for non-proportional loading. *TRIBOLOGY INTERNATIONAL*. 2018;121:204–13.

70. Zhang W, Wang X, Li X, Gong J, Abdel Wahab M. Influence of prior low cycle fatigue on microstructure evolution and subsequent creep behavior. *INTERNATIONAL JOURNAL OF FATIGUE*. Elsevier BV; 2018;109:114–25.

71. Qin S, Zhou Y-L, Cao H, Abdel Wahab M. Model updating in complex bridge structures using kriging model ensemble with genetic algorithm. *KSCE JOURNAL OF CIVIL ENGINEERING*. 2018;22(9):3567–78.

72. Le TC, Phung Van P, Thai CH, Nguyen-Xuan H, Abdel Wahab M. Isogeometric analysis of functionally graded carbon nanotube reinforced composite nanoplates using modified couple stress theory. *COMPOSITE STRUCTURES*. Elsevier; 2018;184:633–49.

73. Thai CH, Abdel Wahab M, Nguyen-Xuan H. A layerwise C-0-type higher order shear deformation theory for laminated composite and sandwich plates. *COMPTEs RENDUS MECANIQUE*. 2018;346(1):57–76.

74. Gadala I, Abdel Wahab M, AlFantazi A. Electrochemical corrosion finite element analysis and burst pressure prediction of externally corroded underground gas transmission pipelines. *JOURNAL OF PRESSURE VESSEL TECHNOLOGY-TRANSACTIONS OF THE ASME*. ASME; 2018;140(1).

75. Bhatti NA, Resende Pereira K de F, Abdel Wahab M. A continuum damage mechanics approach for fretting fatigue under out of phase loading. *TRIBOLOGY INTERNATIONAL*. Elsevier; 2018;117:39–51.

76. Deng Q, Bhatti NA, Yin X, Abdel Wahab M. Numerical modeling of the effect of randomly

- distributed inclusions on fretting fatigue-induced stress in metals. *METALS*. MDPI; 2018;8(10).
77. Tran H, Khatir S, De Roeck G, Bui-Tien T, Nguyen-Ngoc L, Abdel Wahab M. Model updating for nam o bridge using particle swarm optimization algorithm and genetic algorithm. *SENSORS*. MDPI AG; 2018;18(12).
78. Phung Van P, Tran Vinh L, Ferreira A, Nguyen-Xuan H, Abdel Wahab M. Nonlinear transient isogeometric analysis of smart piezoelectric functionally graded material plates based on generalized shear deformation theory under thermo-electro-mechanical loads. *NONLINEAR DYNAMICS*. 2017;87(2):879–94.
79. X. Nguyen H, N. Nguyen T, Abdel Wahab M, Bordas S, Nguyen-Xuan H, P. Voa T. A refined quasi-3D isogeometric analysis for functionally graded microplates based on the modified couple stress theory. *COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING*. 2017;313:904–40.
80. Resende Pereira K de F, Yue T, Abdel Wahab M. Multiscale analysis of the effect of roughness on fretting wear. *TRIBOLOGY INTERNATIONAL*. 2017;110:222–31.
81. Phung Van P, Lieu QX, Nguyen-Xuan H, Abdel Wahab M. Size-dependent isogeometric analysis of functionally graded carbon nanotube-reinforced composite nanoplates. *COMPOSITE STRUCTURES*. 2017;166:120–35.
82. Yue T, Abdel Wahab M. Finite element analysis of fretting wear under variable coefficient of friction and different contact regimes. *TRIBOLOGY INTERNATIONAL*. Elsevier BV; 2017;107:274–82.
83. Kumar D, Biswas R, Poh LH, Abdel Wahab M. Fretting fatigue stress analysis in heterogeneous material using direct numerical simulations in solid mechanics. *TRIBOLOGY INTERNATIONAL*. 2017;109:124–32.
84. Zhou Y-L, Maia N, Sampaio R, Abdel Wahab M. Structural damage detection using transmissibility together with hierarchical clustering analysis and similarity measure. *STRUCTURAL HEALTH MONITORING-AN INTERNATIONAL JOURNAL*. SAGE; 2017;16(6):711–31.
85. Bhatti NA, Abdel Wahab M. Finite element analysis of fretting fatigue under out of phase loading conditions. *TRIBOLOGY INTERNATIONAL*. Elsevier BV; 2017;109:552–62.
86. Khatir T, Bouchetara M, Djafri M, Khatir S, Abdel Wahab M. Influence of balancing of internal combustion engines on the operating conditions of hydrodynamic bearings. *JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY*. 2017;31(10):4579–88.
87. Khatir S, Belaidi I, Khatir T, Hamrani A, Zhou Y-L, Abdel Wahab M. Multiple damage detection in composite beams using particle swarm optimization and genetic algorithm. *MECHANIKA*. 2017;23(4):514–21.
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