Mehmet Yildiz

List of Publications by Year in Descending Order

115 papers	2,158 citations	27 h-index	40 g-index
122 ext. papers	2,607 ext. citations	4 avg, IF	5.67 L-index

#	Paper	IF	Citations
115	Coupling of peridynamics and inverse finite element method for shape sensing and crack propagation monitoring of plate structures. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 391, 114520	5.7	4
114	A generalized hybrid smoothed particle hydrodynamics-peridynamics algorithm with a novel Lagrangian mapping for solution and failure analysis of fluid-structure interaction problems. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 389, 114370	5.7	1
113	Failure sequence determination in sandwich structures using concurrent acoustic emission monitoring and postmortem thermography. *Mechanics of Materials*, **2022**, 164, 104113	3.3	2
112	The effect of different tabbing methods on the damage progression and failure of carbon fiber reinforced composite material under tensile loading. *Polymer Testing*, **2022**, 111, 107612	4.5	0
111	Thermo-responsive and shape-morphing CF/GF composite skin: Full-field experimental measurement, theoretical prediction, and finite element analysis. *Thin-Walled Structures*, **2021**, 160, 106874	4.7	
110	Mechanical behavior and failure of glass/carbon fiber hybrid composites: Multiscale computational predictions validated by experiments. *Composite Structures*, **2021**, 260, 113499	5.3	8
109	Using digital image correlation for in situ strain and damage monitoring in hybrid fiber laminates under in-plane shear loading. *Polymer Composites*, **2021**, 42, 4029-4042	3	3
108	An improved ordinary-state based peridynamic formulation for modeling FGMs with sharp interface transitions. *International Journal of Mechanical Sciences*, **2021**, 197, 106322	5.5	4
107	Dynamics of double emulsion interfaces under the combined effects of electric field and shear flow. *Computational Mechanics*, **2021**, 68, 775-793	4	1
106	Multi-material topology optimization of structures with discontinuities using Peridynamics. *Composite Structures*, **2021**, 258, 113345	5.3	5
105	An experimental implementation of inverse finite element method for real-time shape and strain sensing of composite and sandwich structures. *Composite Structures*, **2021**, 258, 113431	5.3	11
104	A smoothed iFEM approach for efficient shape-sensing applications: Numerical and experimental validation on composite structures. *Mechanical Systems and Signal Processing*, **2021**, 152, 107486	7.8	27
103	Numerical simulations of multi-phase electro-hydrodynamics flows using a simple incompressible smoothed particle hydrodynamics method. *Computers and Mathematics With Applications*, **2021**, 81, 772-785	2.7	27
102	The Effect of Iterative Procedures on the Robustness and Fidelity of Augmented Lagrangian SPH. *Symmetry*, **2021**, 13, 472	2.7	0
101	A novel hybrid damage monitoring approach to understand the correlation between size effect and failure behavior of twill CFRP laminates. *Composite Structures*, **2021**, 270, 114064	5.3	7
100	A two-stage optimization methodology for gate and vent locations and distribution media layout for liquid composite molding process. *Composites Part A: Applied Science and Manufacturing*, **2021**, 149, 106522	8.4	1
99	A new methodology for thermoelastic model identification in composite materials using digital image correlation. *Optics and Lasers in Engineering*, **2021**, 146, 106689	4.6	2

98	Experimental failure analysis and mechanical performance evaluation of fiber-metal sandwich laminates interleaved with polyamide-6,6 interlayers through the combined usage of acoustic emission, thermography and microscopy techniques. *Journal of Sandwich Structures and Materials*, **2020**, 109963622092465	2.1	4
97	An ordinary state-based peridynamic model for toughness enhancement of brittle materials through drilling stop-holes. *International Journal of Mechanical Sciences*, **2020**, 182, 105773	5.5	4
96	Damage mechanisms in CFRP/HNT laminates under flexural and in-plane shear loadings using experimental and numerical methods. *Composites Part A: Applied Science and Manufacturing*, **2020**, 136, 105962	8.4	11
95	Modelling of wave generation in a numerical tank by SPH method. *Journal of Ocean Engineering and Marine Energy*, **2020**, 6, 121-136	1.5	6
94	3D printing of silver-doped polycaprolactone-poly(propylene succinate) composite scaffolds for skin tissue engineering. *Biomedical Materials (Bristol)*, **2020**, 15, 035015	3.5	16
93	Realtime Localization and Estimation of Loads on Aircraft Wings from Depth Images. *Sensors*, **2020**, 20,	3.8	3
92	Investigation on interlaminar delamination tendency of multidirectional carbon fiber composites. *Polymer Testing*, **2020**, 90, 106653	4.5	9
91	Non-destructive determination of the stiffness matrix of a laminated composite structure with lamb wave. *Composite Structures*, **2020**, 237, 111956	5.3	8
90	Electrohydrodynamics of a droplet in a highly confined domain: A numerical study. *Physics of Fluids*, **2020**, 32, 123305	4.4	3
89	Toward Next-Generation Carbon-Based Materials Derived from Waste and Biomass for High-Performance Energy Applications. *Energy Technology*, **2020**, 8, 2000714	3.5	3
88	A Comparative and Review Study on Shape and Stress Sensing of Flat/Curved Shell Geometries Using C-Continuous Family of iFEM Elements. *Sensors*, **2020**, 20,	3.8	14
87	An experimental study on tensile and bending properties of biaxial warp knitted textile composites. *Advanced Composite Materials*, **2020**, 29, 73-88	2.8	4
86	Effect of nanomaterials/nanofibers on the structure and properties of fiber-reinforced composites **2020**, 157-182		
85	Development of computationally efficient augmented Lagrangian SPH for incompressible flows and its quantitative comparison with WCSPH simulating flow past a circular cylinder. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 4187-4207	2.4	6
84	Topology optimization of cracked structures using peridynamics. *Continuum Mechanics and Thermodynamics*, **2019**, 31, 1645-1672	3.5	34
83	Determining tab material for tensile test of CFRP laminates with combined usage of digital image correlation and acoustic emission techniques. *Composites Part A: Applied Science and Manufacturing*, **2019**, 127, 105623	8.4	20
82	Microscopic analysis of failure in woven carbon fabric laminates coupled with digital image correlation and acoustic emission. *Composite Structures*, **2019**, 230, 111515	5.3	24
81	Experimental and numerical investigation on fracture behavior of glass/carbon fiber hybrid composites using acoustic emission method and refined zigzag theory. *Composite Structures*, **2019**, 223, 110971	5.3	43

80	Facile Synthesis of Single- and Multi-Layer Graphene/Mn3O4 Integrated 3D Urchin-Shaped Hybrid Composite Electrodes by Core-Shell Electrospinning. *ChemNanoMat*, **2019**, 5, 792-801	3.5	12
79	Design of fiber-reinforced variable-stiffness composites for different open-hole geometries with fiber continuity and curvature constraints. *Composite Structures*, **2019**, 226, 111280	5.3	22
78	Experimental study on dynamic behavior of woven carbon fabric laminates using in-house piezoelectric sensors. *Smart Materials and Structures*, **2019**, 28, 105004	3.4	6
77	Three-Dimensional Graphene-Based Structures: Production Methods, Properties, and Applications **2019**, 359-387		3
76	Density-based smoothed particle hydrodynamics methods for incompressible flows. *Computers and Fluids*, **2019**, 185, 22-33	2.8	17
75	Design of variable stiffness composite structures using lamination parameters with fiber steering constraint. *Composites Part B: Engineering*, **2019**, 165, 733-746	10	23
74	A novel isogeometric beam element based on mixed form of refined zigzag theory for thick sandwich and multilayered composite beams. *Composites Part B: Engineering*, **2019**, 167, 100-121	10	22
73	Remaining useful life prediction of laminated composite materials using Thermoelastic Stress Analysis. *Composite Structures*, **2019**, 210, 381-390	5.3	10
72	Polymer Composites Containing Functionalized Nanoparticles and the Environment **2019**, 437-466		2
71	Design and Development of a Phased Array System for Damage Detection in Structures. *Computational and Experimental Methods in Structures*, **2018**, 153-189		
70	Three dimensional shape and stress monitoring of bulk carriers based on iFEM methodology. *Ocean Engineering*, **2018**, 147, 256-267	3.9	38
69	A hybrid damage assessment for E-and S-glass reinforced laminated composite structures under in-plane shear loading. *Composite Structures*, **2018**, 186, 347-354	5.3	25
68	Isogeometric analysis using peridynamics and XFEM **2018**,		2
67	A multiphase ISPH method for simulation of droplet coalescence and electro-coalescence. *International Journal of Multiphase Flow*, **2018**, 105, 32-44	3.6	28
66	Modeling 3D melt electrospinning writing by response surface methodology. *Materials and Design*, **2018**, 148, 87-95	8.1	33
65	The performance of embedded fiber Bragg grating sensors for monitoring failure modes of foam cored sandwich structures under flexural loads. *Journal of Sandwich Structures and Materials*, **2018**, 20, 553-577	2.1	9
64	Semi-intrinsic self-healing performance of liquid-cored microcapsules in epoxy matrix. *Advances in Polymer Technology*, **2018**, 37, 1435-1443	1.9	1
63	Efficient strategies for reliability-based design optimization of variable stiffness composite structures. *Structural and Multidisciplinary Optimization*, **2018**, 57, 689-704	3.6	15

62	Design of Pt-Supported 1D and 3D Multilayer Graphene-Based Structural Composite Electrodes with Controlled Morphology by Core-Shell Electrospinning/Electrospraying. *ACS Omega*, **2018**, 3, 6400-6410	2.9	10
61	Cost analysis of variable stiffness composite structures with application to a wind turbine blade. *Composite Structures*, **2018**, 203, 681-695	5.3	11
60	A numerical study of Rayleigh-Taylor instability for various Atwood numbers using ISPH method. *Progress in Computational Fluid Dynamics*, **2018**, 18, 267	0.7	3
59	Tailoring viscoelastic response, self-heating and deicing properties of carbon-fiber reinforced epoxy composites by graphene modification. *Composites Part A: Applied Science and Manufacturing*, **2018**, 106, 1-10	8.4	31
58	Manufacturing of electroactive morphing carbon fiber/glass fiber/epoxy composite: Process and structural monitoring by FBG sensors. *Thin-Walled Structures*, **2018**, 130, 458-466	4.7	10
57	The combined effect of electric forces and confinement ratio on the bubble rising. *International Journal of Heat and Fluid Flow*, **2017**, 65, 352-362	2.4	12
56	Manufacturing functionalized mono-crystalline diamond containing electrospun fibers reinforced epoxy composites with improved mechanical characteristics. *Diamond and Related Materials*, **2017**, 76, 90-96	3.5	8
55	Monitoring the interface and bulk self-healing capability of tri-axial electrospun fibers in glass fiber reinforced epoxy composites. *Composites Part A: Applied Science and Manufacturing*, **2017**, 99, 221-232	8.4	31
54	Design optimization of thin-walled composite structures based on material and fiber orientation. *Composite Structures*, **2017**, 176, 1081-1095	5.3	17
53	A coupled WC-TL SPH method for simulation of hydroelastic problems. *International Journal of Computational Fluid Dynamics*, **2017**, 31, 174-187	1.2	15
52	A systematic study on numerical simulation of electrified jet printing. *Additive Manufacturing*, **2017**, 18, 15-21	6.1	4
51	A study on correlating reduction in Poisson's ratio with transverse crack and delamination through acoustic emission signals. *Polymer Testing*, **2017**, 63, 47-53	4.5	19
50	Self-Healing Thermosetting Composites: Concepts, Chemistry, and Future Advances **2017**, 121-150		1
49	Monitoring the Damage State of Fiber Reinforced Composites Using an FBG Network for Failure Prediction. *Materials*, **2017**, 10,	3.5	14
48	Modeling of Sensor Placement Strategy for Shape Sensing and Structural Health Monitoring of a Wing-Shaped Sandwich Panel Using Inverse Finite Element Method. *Sensors*, **2017**, 17,	3.8	38
47	Numerical simulation of the electrohydrodynamic effects on bubble rising using the SPH method. *International Journal of Heat and Fluid Flow*, **2016**, 62, 313-323	2.4	19
46	Cavitating nozzle flows in micro- and minichannels under the effect of turbulence. *Journal of Mechanical Science and Technology*, **2016**, 30, 2565-2581	1.6	17
45	Monitoring Poisson's ratio of glass fiber reinforced composites as damage index using biaxial Fiber Bragg Grating sensors. *Polymer Testing*, **2016**, 53, 98-107	4.5	16

44	The effect of normal electric field on the evolution of immiscible Rayleigh-Taylor instability. *Theoretical and Computational Fluid Dynamics*, **2016**, 30, 469-483	2.3	4
43	Numerical modeling of convective heat transfer of thermally developing nanofluid flows in a horizontal microtube. *International Journal of Thermal Sciences*, **2016**, 109, 54-69	4.1	24
42	Prediction of fatigue response of composite structures by monitoring the strain energy release rate with embedded fiber Bragg gratings. *Journal of Intelligent Material Systems and Structures*, **2016**, 27, 17-27	2.3	17
41	An experimental study on the effect of length and orientation of embedded FBG sensors on the signal properties under fatigue loading. *Science and Engineering of Composite Materials*, **2016**, 23, 711-719	1.5	2
40	Nano-engineered design and manufacturing of high-performance epoxy matrix composites with carbon fiber/selectively integrated graphene as multi-scale reinforcements. *RSC Advances*, **2016**, 6, 9495-9506	3.7	47
39	Monitoring Poisson's Ratio Degradation of FRP Composites under Fatigue Loading Using Biaxially Embedded FBG Sensors. *Materials*, **2016**, 9,	3.5	9
38	Elastic properties of coiled carbon nanotube reinforced nanocomposite: A finite element study. *Materials and Design*, **2016**, 109, 123-132	8.1	23
37	Design and fabrication of multi-walled hollow nanofibers by triaxial electrospinning as reinforcing agents in nanocomposites. *Journal of Reinforced Plastics and Composites*, **2015**, 34, 1273-1286	2.9	27
36	An incompressible smoothed particle hydrodynamics method for the motion of rigid bodies in fluids. *Journal of Computational Physics*, **2015**, 297, 207-220	4.1	42
35	Design and fabrication of hollow and filled graphene-based polymeric spheres via core-shell electrospraying. *RSC Advances*, **2015**, 5, 91147-91157	3.7	19
34	Repeated self-healing of nano and micro scale cracks in epoxy based composites by tri-axial electrospun fibers including different healing agents. *RSC Advances*, **2015**, 5, 73133-73145	3.7	46
33	Convective heat transfer and second law analysis of non-Newtonian fluid flows with variable thermophysical properties in circular channels. *International Communications in Heat and Mass Transfer*, **2015**, 60, 21-31	5.8	18
32	Rational design and direct fabrication of multi-walled hollow electrospun fibers with controllable structure and surface properties. *European Polymer Journal*, **2015**, 62, 66-76	5.2	26
31	OS7-4 Investigation of Carbon Fiber Reinforced Composites in Room Temperature and Elevated Temperature Conditions Using Embedded Fiber Bragg Grating Sensors(Stress and strain measurement I,OS7 Stress and strain measurement,MEASUREMENT METHODS). *The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference*	0	
30	Numerical simulation of wall bounded and electrically excited Rayleigh-Taylor instability using incompressible smoothed particle hydrodynamics. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2014**, 460, 60-70	5.1	40
29	A numerical investigation into the correction algorithms for SPH method in modeling violent free surface flows. *International Journal of Mechanical Sciences*, **2014**, 79, 56-65	5.5	44
28	Heat transfer characteristics of plug flows with temperature-jump boundary conditions in parallel-plate channels and concentric annuli. *International Journal of Thermal Sciences*, **2014**, 84, 252-259	4.1	11
27	Experimental study on the rheology of anisotropic, flocculated and low volume fraction colloids **2014**, 26, 105-116		8

26	Fabrication and Morphological Investigation of Multi-walled Electrospun Polymeric Nanofibers. *Materials Research Society Symposia Proceedings*, **2014**, 1621, 119-126		4
25	Simulation of single mode Rayleigh⎯Taylor instability by SPH method. *Computational Mechanics*, **2013**, 51, 699-715	4	75
24	Numerical simulation of single droplet dynamics in three-phase flows using ISPH. *Computers and Mathematics With Applications*, **2013**, 66, 525-536	2.7	39
23	A smoothed particle hydrodynamics study on the electrohydrodynamic deformation of a droplet suspended in a neutrally buoyant Newtonian fluid. *Computational Mechanics*, **2013**, 52, 693-707	4	44
22	Dielectric response of fully and partially depleted ferroelectric thin films and inversion of the thickness effect. *Journal Physics D: Applied Physics*, **2013**, 46, 125301	3	7
21	Numerical investigation of Newtonian and non-Newtonian multiphase flows using ISPH method. *Computer Methods in Applied Mechanics and Engineering*, **2013**, 254, 99-113	5.7	98
20	Study of Local and Transient Buckling in Glass Fiber Reinforced Composite Using Fiber Bragg Grating. *Key Engineering Materials*, **2013**, 543, 346-351	0.4	
19	Modeling Die Swell of Second-Order Fluids Using Smoothed Particle Hydrodynamics. *Journal of Fluids Engineering, Transactions of the ASME*, **2013**, 135,	2.1	10
18	A robust weakly compressible SPH method and its comparison with an incompressible SPH. *International Journal for Numerical Methods in Engineering*, **2012**, 89, 939-956	2.4	118
17	Ferrofluid actuation with varying magnetic fields for micropumping applications. *Microfluidics and Nanofluidics*, **2012**, 13, 683-694	2.8	32
16	An Experimental Study on the Process Monitoring of Resin Transfer Molded Composite Structures Using Fiber Optic Sensors. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2012**, 134,	3.3	16
15	Simulation of Rayleigh-Taylor instability by Smoothed Particle Hydrodynamics: Advantages and limitations **2012**,		1
14	Improved Incompressible Smoothed Particle Hydrodynamics method for simulating flow around bluff bodies. *Computer Methods in Applied Mechanics and Engineering*, **2011**, 200, 1008-1020	5.7	93
13	Numerical modeling of Kelvin⎯Helmholtz instability using smoothed particle hydrodynamics. *International Journal for Numerical Methods in Engineering*, **2011**, 87, 988-1006	2.4	47
12	Coupling of Defect Fields to Domains and Phase Transition Characteristics of Ferroelectric Thin Films with Charged Defects. *Materials Research Society Symposia Proceedings*, **2011**, 1292, 15		
11	Bluff-Body Simulation by SPH Method With Relatively High Reynolds Number in Laminar Flow Regime **2010**,		1
10	Liquid Phase Diffusion Growth of SiGe Single Crystals under Magnetic Fields. *ECS Transactions*, **2009**, 16, 135-146	1	8
9	SPH with the multiple boundary tangent method. *International Journal for Numerical Methods in Engineering*, **2009**, 77, 1416-1438	2.4	110

8	Optical properties of SixGe1x single crystals grown by liquid phase diffusion. *Materials Science in Semiconductor Processing*, **2009**, 12, 146-150	4.3	1
7	Formation Control of Multiple Robots Using Parametric and Implicit Representations. *Lecture Notes in Computer Science*, **2008**, 558-565	0.9	5
6	Modeling Transient Heat Transfer Using SPH and Implicit Time Integration. *Numerical Heat Transfer, Part B: Fundamentals*, **2007**, 51, 1-23	1.3	46
5	A numerical simulation study for the effect of magnetic fields in liquid phase diffusion growth of SiGe single crystals. *Journal of Crystal Growth*, **2006**, 291, 497-511	1.6	23
4	Growth of bulk SiGe single crystals by liquid phase diffusion. *Journal of Crystal Growth*, **2005**, 280, 151-160	1.6	62
3	A continuum model for the Liquid Phase Diffusion growth of bulk SiGe single crystals. *International Journal of Engineering Science*, **2005**, 43, 1059-1080	5.7	29
2	Damage growth and failure detection in hybrid fiber composites using experimental in-situ optical strain measurements and smoothing element analysis. *International Journal of Damage Mechanics*, 105678952110451	3.9	
1	Polyoxazoline-modified graphene oxides with improved water and epoxy resin dispersibility and stability towards composite applications. *Journal of Applied Polymer Science*, 52406	2.9	1