Seung Bok Choi

List of Publications by Citations

694 papers	10,938 citations	48 h-index	68 g-index
771 ext. papers	12,864 ext. citations	2.5 avg, IF	6.89 L-index

#	Paper	IF	Citations
694	A HYSTERESIS MODEL FOR THE FIELD-DEPENDENT DAMPING FORCE OF A MAGNETORHEOLOGICAL DAMPER. *Journal of Sound and Vibration*, **2001**, 245, 375-383	3.9	328
693	Vibration Control of a MR Seat Damper for Commercial Vehicles. *Journal of Intelligent Material Systems and Structures*, **2000**, 11, 936-944	2.3	180
692	A time-varying sliding surface for fast and robust tracking control of second-order uncertain systems. *Automatica*, **1994**, 30, 899-904	5.7	161
691	Geometry optimization of MR valves constrained in a specific volume using the finite element method. *Smart Materials and Structures*, **2007**, 16, 2242-2252	3.4	134
690	Control and Response Characteristics of a Magneto-Rheological Fluid Damper for Passenger Vehicles. *Journal of Intelligent Material Systems and Structures*, **2000**, 11, 80-87	2.3	124
689	Vibration control of electrorheological seat suspension with human-body model using sliding mode control. *Journal of Sound and Vibration*, **2007**, 303, 391-404	3.9	120
688	A state of art on magneto-rheological materials and their potential applications. *Journal of Intelligent Material Systems and Structures*, **2018**, 29, 2051-2095	2.3	119
687	H8 Control Performance of a Full-Vehicle Suspension Featuring Magnetorheological Dampers. *Vehicle System Dynamics*, **2002**, 38, 341-360	2.8	98
686	Control characteristics of a continuously variable ER damper. *Mechatronics*, **1998**, 8, 143-161	3	94
685	Human simulated intelligent control of vehicle suspension system with MR dampers. *Journal of Sound and Vibration*, **2009**, 319, 753-767	3.9	93
684	Analytical and experimental validation of a nondimensional Bingham model for mixed-mode magnetorheological dampers. *Journal of Sound and Vibration*, **2008**, 312, 399-417	3.9	88
683	Moving switching surfaces for robust control of second-order variable structure systems. *International Journal of Control*, **1993**, 58, 229-245	1.5	79
682	Optimal design of MR shock absorber and application to vehicle suspension. *Smart Materials and Structures*, **2009**, 18, 035012	3.4	78
681	Cr 2 O 3 nanoparticle-functionalized WO 3 nanorods for ethanol gas sensors. *Applied Surface Science*, **2018**, 432, 241-249	6.7	77
680	Optimal design of an automotive magnetorheological brake considering geometric dimensions and zero-field friction heat. *Smart Materials and Structures*, **2010**, 19, 115024	3.4	75
679	Optimal design of a vehicle magnetorheological damper considering the damping force and dynamic range. *Smart Materials and Structures*, **2009**, 18, 015013	3.4	73
678	Magnetorheological dampers in shear mode. *Smart Materials and Structures*, **2008**, 17, 015022	3.4	73

677	A magnification device for precision mechanisms featuring piezoactuators and flexure hinges: Design and experimental validation. *Mechanism and Machine Theory*, **2007**, 42, 1184-1198	4	73
676	Constitutive models of electrorheological and magnetorheological fluids using viscometers. *Smart Materials and Structures*, **2005**, 14, 1025-1036	3.4	73
675	Position control of a two-link flexible manipulator featuring piezoelectric actuators and sensors. *Mechatronics*, **2001**, 11, 707-729	3	73
674	Optimal design of magnetorheological valves via a finite element method considering control energy and a time constant. *Smart Materials and Structures*, **2008**, 17, 025024	3.4	68
673	Force tracking control of a flexible gripper featuring shape memory alloy actuators. *Mechatronics*, **2001**, 11, 677-690	3	66
672	State of the art of control schemes for smart systems featuring magneto-rheological materials. *Smart Materials and Structures*, **2016**, 25, 043001	3.4	64
671	A hybrid clustering based fuzzy structure for vibration control Part 2: An application to semi-active vehicle seat-suspension system. *Mechanical Systems and Signal Processing*, **2015**, 56-57, 288-301	7.8	63
670	Integrated control on MR vehicle suspension system associated with braking and steering control. *Vehicle System Dynamics*, **2011**, 49, 361-380	2.8	63
669	Vibration control of smart hull structure with optimally placed piezoelectric composite actuators. *International Journal of Mechanical Sciences*, **2011**, 53, 647-659	5.5	62
668	Field test results of a semi-active ER suspension system associated with skyhook controller. *Mechatronics*, **2001**, 11, 345-353	3	62
667	Antilock Brake System With a Continuous Wheel Slip Control to Maximize the Braking Performance and the Ride Quality. *IEEE Transactions on Control Systems Technology*, **2008**, 16, 996-1003	4.8	61
666	Optimal control of structural vibrations using a mixed-mode magnetorheological fluid mount. *International Journal of Mechanical Sciences*, **2008**, 50, 559-568	5.5	61
665	A New Generation of Innovative Ultra-Advanced Intelligent Composite Materials Featuring Electro-Rheological Fluids: An Experimental Investigation. *Journal of Composite Materials*, **1989**, 23, 1232-1255	2.7	61
664	Magnetorheological Isolators Using Multiple Fluid Modes. *Journal of Intelligent Material Systems and Structures*, **2007**, 18, 1143-1148	2.3	57
663	Comparison of Field-Controlled Characteristics between ER and MR Clutches. *Journal of Intelligent Material Systems and Structures*, **1999**, 10, 615-619	2.3	57
662	Selection of magnetorheological brake types via optimal design considering maximum torque and constrained volume. *Smart Materials and Structures*, **2012**, 21, 015012	3.4	56
661	Control and Response Characteristics of a Magneto-Rheological Fluid Damper for Passenger Vehicles. *Journal of Intelligent Material Systems and Structures*, **2000**, 11, 80-87	2.3	56
660	Optimal design of a novel hybrid MR brake for motorcycles considering axial and radial magnetic flux. *Smart Materials and Structures*, **2012**, 21, 055003	3.4	54

659	Fine motion control of a moving stage using a piezoactuator associated with a displacement amplifier. *Smart Materials and Structures*, **2005**, 14, 222-230	3.4	54
658	An investigation on piezoelectric energy harvesting for MEMS power sources. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2005**, 219, 429-436	1.3	53
657	Sliding mode control of vibration in a single-link flexible arm with parameter variations. *Journal of Sound and Vibration*, **1995**, 179, 737-748	3.9	53
656	Selective Oxidizing Gas Sensing and Dominant Sensing Mechanism of n-CaO-Decorated n-ZnO Nanorod Sensors. *ACS Applied Materials & Interfaces*, **2017**, 9, 9975-9985	9.5	52
655	Vibration control of a passenger vehicle featuring magnetorheological engine mounts. *International Journal of Vehicle Design*, **2003**, 33, 2	2.4	52
654	A fuzzy-sliding mode controller for robust tracking of robotic manipulators. *Mechatronics*, **1997**, 7, 199-216	3	51
653	Vibration control of an electrorheological fluid-based suspension system with an energy regenerative mechanism. *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering*, **2009**, 223, 459-469	1.4	50
652	New shunting parameter tuning method for piezoelectric damping based on measured electrical impedance. *Smart Materials and Structures*, **2000**, 9, 868-877	3.4	50
651	Moving sliding surfaces for high-order variable structure systems. *International Journal of Control*, **1999**, 72, 960-970	1.5	50
650	The Field-Dependent Rheological Properties of Magnetorheological Grease Based on Carbonyl-Iron-Particles. *Smart Materials and Structures*, **2016**, 25, 095043	3.4	50
649	Magnetoresistance Characteristics of Magnetorheological Gel under a Magnetic Field. *Industrial & Engineering Chemistry Research*, **2014**, 53, 4704-4710	3.9	49
648	Vibration Control of a MR Seat Damper for Commercial Vehicles. *Journal of Intelligent Material Systems and Structures*, **2000**, 11, 936-944	2.3	48
647	A hybrid inchworm linear motor. *Mechatronics*, **2002**, 12, 525-542	3	47
646	Design and control of a prosthetic leg for above-knee amputees operated in semi-active and active modes. *Smart Materials and Structures*, **2016**, 25, 085009	3.4	46
645	Controllable fabrication of silica encapsulated soft magnetic microspheres with enhanced oxidation-resistance and their rheology under magnetic field. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2012**, 403, 133-138	5.1	46
644	MR seat suspension for vibration control of a commercial vehicle. *International Journal of Vehicle Design*, **2003**, 31, 202	2.4	46
643	Synergistic effects of codecoration of oxide nanoparticles on the gas sensing performance of In2O3 nanorods. *Sensors and Actuators B: Chemical*, **2016**, 227, 591-599	8.5	45
642	Force Feedback Control of a Medical Haptic Master using an Electrorheological Fluid. *Journal of Intelligent Material Systems and Structures*, **2007**, 18, 1149-1154	2.3	45

641	A low sedimentation magnetorheological fluid based on plate-like iron particles, and verification using a damper test. *Smart Materials and Structures*, **2014**, 23, 027001	3.4	44
640	Vibration control of magnetorheological damper system subjected to parameter variations. *International Journal of Vehicle Design*, **2008**, 46, 94	2.4	44
639	Non-dimensional analysis and design of a magnetorheological damper. *Journal of Sound and Vibration*, **2005**, 288, 847-863	3.9	42
638	Vibration Control of a Structural System Using Magneto-Rheological Fluid Mount. *Journal of Intelligent Material Systems and Structures*, **2005**, 16, 931-936	2.3	42
637	Active Vibration Control of Intelligent Composite Laminate Structures Incorporating an Electro-Rheological Fluid. *Journal of Intelligent Material Systems and Structures*, **1996**, 7, 411-419	2.3	42
636	Vibration control of a flexible beam using shape memory alloy actuators. *Journal of Guidance, Control, and Dynamics*, **1996**, 19, 1178-1180	2.1	41
635	Vibration control of flexible linkage mechanisms using piezoelectric films. *Mechanism and Machine Theory*, **1994**, 29, 535-546	4	41
634	Force Tracking Control of a Flexible Gripper Driven by Piezoceramic Actuators. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1997**, 119, 439-446	1.6	40
633	Vibration control of vehicle ER suspension system using fuzzy moving sliding mode controller. *Journal of Sound and Vibration*, **2008**, 311, 1004-1019	3.9	40
632	A new approach to hysteresis modelling for a piezoelectric actuator using Preisach model and recursive method with an application to open-loop position tracking control. *Sensors and Actuators A: Physical*, **2018**, 270, 136-152	3.9	39
631	Design and novel type of a magnetorheological damper featuring piston bypass hole. *Smart Materials and Structures*, **2015**, 24, 035013	3.4	39
630	Vibration and Position Tracking Control of a Flexible Beam Using SMA Wire Actuators. *JVC/Journal of Vibration and Control*, **2009**, 15, 263-281	2	39
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628	Magnetorheological Fluid Technology		39
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626	Moving Sliding Surfaces for Fast Tracking Control of Second-Order Dynamical Systems. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1994**, 116, 154-158	1.6	38
625	A new fuzzy-disturbance observer-enhanced sliding controller for vibration control of a train-car suspension with magneto-rheological dampers. *Mechanical Systems and Signal Processing*, **2018**, 105, 447-466	7.8	37
624	Design and vibration control of military vehicle suspension system using magnetorheological damper and disc spring. *Smart Materials and Structures*, **2013**, 22, 065006	3.4	37

623	Rheological Parameter Estimation for a Ferrous Nanoparticle-based Magnetorheological Fluid using Genetic Algorithms. *Journal of Intelligent Material Systems and Structures*, **2006**, 17, 261-269	2.3	37
622	Response time of magnetorheological dampers to current inputs in a semi-active suspension system: Modeling, control and sensitivity analysis. *Mechanical Systems and Signal Processing*, **2021**, 146, 106999	7.8	36
621	Constitutive models of magnetorheological fluids having temperature-dependent prediction parameter. *Smart Materials and Structures*, **2018**, 27, 095001	3.4	35
620	H2S gas sensing properties of Fe2O3 nanoparticle-decorated NiO nanoplate sensors. *Surface and Coatings Technology*, **2016**, 307, 1088-1095	4.4	35
619	Effects of multiwall carbon nanotubes on viscoelastic properties of magnetorheological elastomers. *Smart Materials and Structures*, **2016**, 25, 077001	3.4	35
618	Plate-like iron particles based bidisperse magnetorheological fluid. *Journal of Applied Physics*, **2013**, 114, 213904	2.5	35
617	A hybrid actuator scheme for robust position control of a flexible single-link manipulator. *Journal of Field Robotics*, **1996**, 13, 359-370		35
616	Optimal design of magnetorheological fluid-based dampers for front-loaded washing machines. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2014**, 228, 294-306	1.3	34
615	Wear and Friction Characteristics of Magnetorheological Fluid under Magnetic Field Activation. *Tribology Transactions*, **2011**, 54, 616-624	1.8	34
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613	Vibration control of a frame structure using electro-rheological fluid mounts. *International Journal of Mechanical Sciences*, **2002**, 44, 2027-2045	5.5	34
612	Vibration Control of an ER Seat Suspension for a Commercial Vehicle. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2003**, 125, 60-68	1.6	33
611	An Approach for Hysteresis Modeling Based on Shape Function and Memory Mechanism. *IEEE/ASME Transactions on Mechatronics*, **2018**, 23, 1270-1278	5.5	33
610	Material Characterizations of Gr-Based Magnetorheological Elastomer for Possible Sensor Applications: Rheological and Resistivity Properties. *Materials*, **2019**, 12,	3.5	32
609	Vibration Control of a Flexible Structure Using ER Dampers. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1999**, 121, 134-138	1.6	32
608	Analysis of a Short Squeeze-Film Damper Operating with Electrorheological Fluids. *Tribology Transactions*, **1995**, 38, 857-862	1.8	32
607	Hydrogen sensing properties and mechanism of NiO-Nb2O5 composite nanoparticle-based electrical gas sensors. *Ceramics International*, **2017**, 43, 5247-5254	5.1	31
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605	Vibration control of a flexible beam structure using squeeze-mode ER mount. *Journal of Sound and Vibration*, **2004**, 273, 185-199	3.9	31
604	The influence of particle size on the rheological properties of plate-like iron particle based magnetorheological fluids. *Smart Materials and Structures*, **2015**, 24, 015004	3.4	30
603	Rheological properties of isotropic magnetorheological elastomers featuring an epoxidized natural rubber. *Smart Materials and Structures*, **2016**, 25, 107001	3.4	30
602	Optimal design of high damping force engine mount featuring MR valve structure with both annular and radial flow paths. *Smart Materials and Structures*, **2013**, 22, 115024	3.4	30
601	A new approach to magnetic circuit analysis and its application to the optimal design of a bi-directional magnetorheological brake. *Smart Materials and Structures*, **2011**, 20, 125003	3.4	30
600	Frontal Crash Mitigation using MR Impact Damper for Controllable Bumper. *Journal of Intelligent Material Systems and Structures*, **2007**, 18, 1211-1215	2.3	30
599	Vibration control of a vehicle seat suspension featuring a magnetorheological damper based on a new adaptive fuzzy sliding-mode controller. *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering*, **2016**, 230, 437-458	1.4	29
598	A novel type of tunable magnetorheological dampers operated by permanent magnets. *Sensors and Actuators A: Physical*, **2017**, 255, 104-117	3.9	29
597	The field-dependent complex modulus of magnetorheological elastomers consisting of sucrose acetate isobutyrate ester. *Journal of Intelligent Material Systems and Structures*, **2017**, 28, 1993-2004	2.3	29
596	Design of a new adaptive fuzzy controller and its application to vibration control of a vehicle seat installed with an MR damper. *Smart Materials and Structures*, **2015**, 24, 085012	3.4	29
595	A new composite adaptive controller featuring the neural network and prescribed sliding surface with application to vibration control. *Mechanical Systems and Signal Processing*, **2018**, 107, 409-428	7.8	29
594	Implementation of functionalized multiwall carbon nanotubes on magnetorheological elastomer. *Journal of Materials Science*, **2018**, 53, 10122-10134	4.3	29
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592	Interaction of active and passive vibration control of laminated composite beams with piezoceramic sensors/actuators. *Materials & Design*, **2002**, 23, 277-286		29
591	A comparison of field-dependent rheological properties between spherical and plate-like carbonyl iron particles-based magneto-rheological fluids. *Smart Materials and Structures*, **2016**, 25, 095025	3.4	29
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588	Optimal design and selection of magneto-rheological brake types based on braking torque and mass. *Smart Materials and Structures*, **2015**, 24, 067001	3.4	28

587	An analytical approach to optimally design of electrorheological fluid damper for vehicle suspension system. *Meccanica*, **2012**, 47, 1633-1647	2.1	28
586	A hydro-mechanical model for hysteretic damping force prediction of ER damper: experimental verification. *Journal of Sound and Vibration*, **2005**, 285, 1180-1188	3.9	28
585	Sequential changes in synaptic vesicle pools and endosome-like organelles during depolarization near the active zone of central nerve terminals. *Neuroscience*, **2002**, 109, 195-206	3.9	28
584	Quantitative feedback theory control of a single-link flexible manipulator featuring piezoelectric actuator and sensor. *Smart Materials and Structures*, **1999**, 8, 338-349	3.4	28
583	A magneto-rheological fluid mount featuring squeeze mode: analysis and testing. *Smart Materials and Structures*, **2016**, 25, 055002	3.4	28
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581	Vibration Controllability of Sandwich Structures with Smart Materials of Electrorheological Fluids and Magnetorheological Materials: A Review. *Journal of Vibration Engineering and Technologies*, **2019**, 7, 359-377	2	27
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579	A new approach for dynamic modeling of an electrorheological damper using a lumped parameter method. *Smart Materials and Structures*, **2009**, 18, 115020	3.4	27
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576	DESIGN AND TESTING OF A COMPACT MAGNETORHEOLOGICAL DAMPER FOR HIGH IMPULSIVE LOADS. *International Journal of Modern Physics B*, **2005**, 19, 1549-1555	1.1	27
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574	Ethanol sensing properties of networked In2O3 nanorods decorated with Cr2O3-nanoparticles. *Ceramics International*, **2015**, 41, 9823-9827	5.1	26
573	A new tactile device using magneto-rheological sponge cells for medical applications: Experimental investigation. *Sensors and Actuators A: Physical*, **2016**, 239, 61-69	3.9	26
572	Control of Landing Efficiency of an Aircraft Landing Gear System With Magnetorheological Dampers. *Journal of Aircraft*, **2019**, 56, 1980-1986	1.6	26
571	Vibration Isolation of Structural Systems Using Squeeze Mode ER Mounts. *Journal of Intelligent Material Systems and Structures*, **2002**, 13, 421-424	2.3	26
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568	Design of a 4-DOF MR haptic master for application to robot surgery: virtual environment work. *Smart Materials and Structures*, **2014**, 23, 095032	3.4	25
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563	A new type of piezostack-driven jetting dispenser for semiconductor electronic packaging: modeling and control. *Smart Materials and Structures*, **2008**, 17, 015033	3.4	25
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553	Control of an ER haptic master in a virtual slave environment for minimally invasive surgery applications. *Smart Materials and Structures*, **2008**, 17, 065012	3.4	24
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539	A new method for beam-damage-diagnosis using adaptive fuzzy neural structure and wavelet analysis. *Mechanical Systems and Signal Processing*, **2013**, 39, 181-194	7.8	22
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537	Vibration control of a flexible structure using a hybrid mount. *International Journal of Mechanical Sciences*, **2004**, 46, 143-157	5.5	22
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535	Performance Evaluation of a Mixed Mode ER Engine Mount Via Hardware-in-the-Loop Simulation. *Journal of Intelligent Material Systems and Structures*, **1999**, 10, 671-677	2.3	22
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531	Fuzzy Neural Network Control for Vehicle Stability Utilizing Magnetorheological Suspension System. *Journal of Intelligent Material Systems and Structures*, **2009**, 20, 457-466	2.3	21
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