Gunhee Jang

List of Publications by Year
in descending order

28 papers	565 citations	687363 13 h-index	610901 24 g-index
28 all docs	28 docs citations	28 times ranked	428 citing authors

#	Article	IF	Citations
1	Magnetic Navigation System With Gradient and Uniform Saddle Coils for the Wireless Manipulation of Micro-Robots in Human Blood Vessels. IEEE Transactions on Magnetics, 2010, 46, 1943-1946.	2.1	146
2	EMA system with gradient and uniform saddle coils for 3D locomotion of microrobot. Sensors and Actuators A: Physical, 2010, 163, 410-417.	4.1	74
3	Magnetic Navigation System Utilizing a Closed Magnetic Circuit to Maximize Magnetic Field and a Mapping Method to Precisely Control Magnetic Field in Real Time. IEEE Transactions on Industrial Electronics, 2018, 65, 5673-5681.	7.9	45
4	Determination of the dynamic coefficients of the coupled journal and thrust bearings by the perturbation method. Tribology Letters, 2006, 22, 239-246.	2.6	40
5	Stability analysis of a disk-spindle system supported by coupled journal and thrust bearings considering five degrees of freedom. Tribology International, 2010, 43, 1479-1490.	5.9	35
6	Crawling microrobot actuated by a magnetic navigation system in tubular environments. Sensors and Actuators A: Physical, 2014, 209, 100-106.	4.1	34
7	A generalized Reynolds equation and its perturbation equations for fluid dynamic bearings with curved surfaces. Tribology International, 2012, 50, 6-15.	5.9	27
8	Dual-body magnetic helical robot for drilling and cargo delivery in human blood vessels. Journal of Applied Physics, 2015, 117, .	2.5	21
9	Selective Motion Control of a Crawling Magnetic Robot System for Wireless Self-Expandable Stent Delivery in Narrowed Tubular Environments. IEEE Transactions on Industrial Electronics, 2017, 64, 1636-1644.	7.9	20
10	Complete determination of the dynamic coefficients of coupled journal and thrust bearings considering five degrees of freedom for a general rotor-bearing system. Microsystem Technologies, 2011, 17, 749-759.	2.0	19
11	A Spiral Microrobot Performing Navigating Linear and Drilling Motions by Magnetic Gradient and Rotating Uniform Magnetic Field for Applications in Unclogging Blocked Human Blood Vessels. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	18
12	Optimal design and experimental verification of fluid dynamic bearings with high load capacity applied to an integrated motor propulsor in unmanned underwater vehicles. Tribology International, 2017, 114, 221-233.	5.9	18
13	Capsule-Type Magnetic Microrobot Actuated by an External Magnetic Field for Selective Drug Delivery in Human Blood Vessels. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	14
14	Robust design of a HDD spindle system supported by fluid dynamic bearings utilizing the stability analysis of five degrees of freedom of a general rotor-bearing system. Microsystem Technologies, 2011, 17, 761-770.	2.0	9
15	Finite-element coupled analyses of the Reynolds and Hagenâ€“Poiseuille equations to calculate pressure and flow of fluid dynamic bearings with a recirculation channel. Tribology International, 2018, 128, 52-64.	5.9	9
16	Resonance-based design of wireless magnetic capsule for effective sampling of microbiome in gastrointestinal tract. Sensors and Actuators A: Physical, 2022, 342, 113654.	4.1	9
17	Optimal design of fluid dynamic bearings to develop a robust disk-spindle system in a hard disk drive utilizing modal analysis. Microsystem Technologies, 2013, 19, 1495-1504.	2.0	6
18	Robust optimal design of the FDBs in a HDD to reduce NRRO and RRO. Microsystem Technologies, 2012, 18, 1335-1342.	2.0	5

#	Article	IF	Citations
19	Monte Carlo simulation of the manufacturing tolerance in FDBs to identify the sensitive design variables affecting the performance of a disk-spindle system. Microsystem Technologies, 2015, 21, 2649-2656.	2.0	4
20	Effect of an hourglass-shaped sleeve on the performance of the fluid dynamic bearings of a HDD spindle motor. Microsystem Technologies, 2014, 20, 1435-1445.	2.0	3
21	Dynamic behavior of airâ€“oil interface in fluid dynamic bearings with a double sealing structure in a 2.5â€²â€² hard disk drive due to non-operating axial shock. Tribology International, 2016, 98, 306-316.	5.9	3
22	Magnetically induced vibration of a flexible rotating disk-spindle system due to the internal magnetic force arising from the spindle motor of a HDD. Microsystem Technologies, 2013, 19, 1529-1537.	2.0	2
23	Stability analysis of a whirling rigid rotor supported by stationary grooved FDBs considering the five degrees of freedom of a general rotor-bearing system. Microsystem Technologies, 2015, 21, 2685-2696.	2.0	2
24	Manipulation of permanent magnet beads with head-to-tail ring formation on thin 3D surfaces. Sensors and Actuators A: Physical, 2015, 233, 532-541.	4.1	1
25	Crawling Magnetic Robot to Perform a Biopsy in Tubular Environments by Controlling a Magnetic Field. Applied Sciences (Switzerland), 2021, 11, 5292.	2.5	1
26	Magnetic equilibrium postures of a multibody magnetic microrobot composed of a spherical magnet chain. Microsystem Technologies, 2014, 20, 1471-1478.	2.0	0
27	Robust hub design to prevent mechanical contact between the hub and sleeve of FDBs in an HDD due to disc clamping force. Microsystem Technologies, 2015, 21, 2797-2802.	2.0	0
28	Robust shaft design to compensate deformation in the hub press-fitting and disk clamping process of 2.5â€³ HDDs. Microsystem Technologies, 2016, 22, 1299-1305.	2.0	0