

Refereed Conference Publications

1. H. M. C. M. Anver, R. Mutlu, and **G. Alici**, "3D Printing of a Thin-Wall Soft and Monolithic Gripper Using Fused Filament Fabrication", 2017 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.442—447, Munich, Germany, July 2017.
2. H. Zhou, and **G. Alici**, "Modeling and Experimental Characterization of Magnetic Membranes as Soft Smart Actuators for Medical Robotics", 2017 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.797 – 802, Munich, Germany, July 2017.
3. R. Mutlu , S. K. Yildiz, and **G. Alici**, M. in het Panhuis, and G.M, Spinks, "Mechanical Stiffness Augmentation of a 3D Printed Soft Prosthetic Finger", 2016 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.7-12, Banff, Canada, July 2016.
4. S. K. Yildiz, R. Mutlu and **G. Alici**, "Performance Quantification of Strain Sensors for Flexible Manipulators", 2016 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.584 -- 589, Banff, Canada, July 2016.
5. F. Munoz, **G. Alici**, H. Zhou, W. Li and M. Sitti, "Analysis of the Magnetic Torque on a Tilted Permanent Magnet for Drug Delivery in Capsule Robots", 2016 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.1386 -- 1391, Banff, Canada, July 2016.
6. J. Zhang, S. Yan, D. Yuan, **G. Alici**, N. T. Nguyen, and W. H. Li, "On-chip manipulation of micro-particles by a novel viscoelastic-based ferrofluid", 2016 International Conference on Microfluidics, Nanofluidics and Lab-on-Chip, pp., Dalian, China, June 2016.
7. J. Zhang, S. Yan, D. Yuan, **G. Alici**, N. T. Nguyen, and W. H. Li, "High Throughput Cell-Free Extraction of Plasma by an Integrated Microfluidic Device Combining Inertial Microfluidics and Membrane", ASME 2016 5th International Conference on Micro/Nanoscale Heat and Mass Transfer, doi:10.1115/MNHMT2016-6717, pp. V001T01A012; 6 pages, Singapore, January 4–6, 2016.
8. F. Munoz, **G. Alici** and W. Li, "Optimization of Multiple Arc-shaped Magnets for Drug Delivery in a Capsule Robot", 2015 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.189-195, Busan, Korea, July 2015.
9. R. Mutlu, **G. Alici**, M. in het Panhuis, and G.M, Spinks, " Effect of Flexure Hinge Type on A 3D Printed Fully Compliant Prosthetic Finger", 2015 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.790-795, Busan, Korea, July 2015.

10. A. Khaldi, A. Maziz, **G. Alici**, G. M. Spinks, and E. W.H. Jager, "Soft, flexible micromanipulators comprising polypyrrole trilayer microactuators", Proc. SPIE 9430, Electroactive Polymer Actuators and Devices (EAPAD) 2015, 94301R (April 1, 2015); doi:10.1117/12.2084176.
11. D. Yuan, J. Zhang, S. Yan, C. Pan, **G. Alici**, N. T. Nguyen, and W. H. Li, "Three-dimensional particle focusing under viscoelastic flow based on dean-flow-coupled elasto-inertial effects", Proceedings of SPIE, Vol. 9903, Part 1, DOI: 10.1117/12.2211265, 7th International Symposium on Precision Mechanical Measurements (ISPM), Xiamen, CHINA, August 2015.
12. F. Munoz, **G. Alici** and W. Li, "An Accurate Model for Size Optimization of an Embedded Permanent Magnet for Drug Delivery with Capsule Robots," 7th IEEE International Conference on Technologies for Practical Robot Applications (TePRA), pp. 1-7, Massachusetts, USA, May 11 2015.
13. F. Munoz, **G. Alici** and W. Li, "Design Optimization of a Magnetomechanical System for Drug Delivery in Wireless Capsule Endoscopy", 2014 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.1097-1102, Besançon, France, July 2014.
14. R. Mutlu, **G. Alici**, X. Xiang, and W. Li, "An Active-Compliant Micro-Stage Based on EAP Artificial Muscles", 2014 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.611--616, Besançon, France, July 2014.
15. C. H. Nguyen, **G. Alici**, and R. Mutlu, "Modeling a Soft Robotic Mechanism Based on Dielectric Elastomer Actuators", 2014 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.599 -- 604, Besançon, France, July 2014.
16. S. Yan, J. Zhang, Y. Yuan, **G. Alici**, H. P. Du, Y. Zhu, and W. H. Li, "Particle sizing using dielectrophoresis-active hydrophoresis", The Proceedings of the 19th Australasian Fluid Mechanics Conference, pp. 189-1--189-4, Melbourne, Australia, December 2014.
17. M. Sabetghadam, M. Itik, **G. Alici**, "Fuzzy Control of a Conjugated Polymer Actuator", 52nd IEEE Conference on Decision and Control, pp.336 -- 341, Firenze, Italy, December 2013.
18. M. Itik, F. D. Ulker and **G. Alici**, Robust control of a trilayer conducting polymer actuator ", Proc. SPIE 9056, Electroactive Polymer Actuators and Devices (EAPAD) 2014, 90561U (March 8, 2014); doi:10.1117/12.2044599; <http://dx.doi.org/10.1117/12.2044599>.
19. R. Mutlu, **G. Alici**, W. Li, "Electroactive Polymer Actuators as Soft Robotic Manipulators: Electro-Mechanical Modeling and Identification", 2013

- IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.1096 -- 1101, Wollongong, Australia, July 2013.
20. M. Li, S. Li, W.H. Li, W. Wen, and **G. Alici**, “Continuous particle manipulation and separation in a hurdle-combined waved microchannel using DC dielectrophoresis”, *Proceedings of the 7th Int. Conf. on Micromechanics of Granular Media, Sydney, Australia, 8-12 July 2013. Eds. A.B. Yu, K. Dong, R. Yang, and S. Luding. pp. 1150-1153*, July 2013.
 21. T.F. Tian, W. H. Li, J. Ding, **G. Alici**, and H. Du, “Study of shear-stiffened elastomers”, *Proceedings of the 7th Int. Conf. on Micromechanics of Granular Media, Sydney, Australia, 8-12 July 2013. Eds. A.B. Yu, K. Dong, R. Yang, and S. Luding. pp. 133-136*, July 2013.
 22. T.F. Tian, W.H. Li, and **G. Alici**, “Study of magnetorheology and sensing capabilities of MR elastomers”, *13th Int. Conf. on ER Fluids and MR Suspensions (ERMR2012)*, IOP Publishing, *Journal of Physics: Conference Series* 412 (2013) 012037. DOI: 10.1088/1742-6596/412/1/012037.
 23. T.F. Tian, X.Z. Zhang, W.H. Li, **G. Alici**, and J. Ding, “Study of PDMS based magnetorheological elastomers”, *13th Int. Conf. on ER Fluids and MR Suspensions (ERMR2012)*, IOP Publishing, *Journal of Physics: Conference Series* 412 (2013) 012038, DOI: 10.1088/1742-6596/412/1/012038.
 24. H. Zhou, **G. Alici**, T. Than, W. Li, “An investigation into biomechanical and biotribological properties of a real intestine for design of a spiral-type robotic capsule“, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.71-76, Wollongong, Australia, July 2013.
 25. H. Zhou, **G. Alici**, T. Than, W. Li, “Modeling and Experimental Investigation of Mechanical Behavior of A Spiral-type Capsule in Small Intestine”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.1260 -- 1265, Wollongong, Australia, July 2013.
 26. X. Wang, **G. Alici**, C. Nguyen, “Establishment and Experimental Verification of a Prandtl–Ishlinskii Hysteresis Model for Tri-Layer Conducting Polymer Actuators”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.1217 -- 1221, Wollongong, Australia, July 2013.
 27. L. R. Maul, **G. Alici**, “A magnetically actuated endoscopic capsule robot based on a rolling locomotion mechanism”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.50-55, Wollongong, Australia, July 2013.
 28. C. Druitt, **G. Alici**, “Neuro-Fuzzy Control of Electroactive Polymer Actuators”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.373--380, Wollongong, Australia, July 2013.

29. X. Wang, **G. Alici**, C. Nguyen, “A Methodology to Establish a Hysteresis Model for Trilayer Conducting Polymer Actuators”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.111-116, Wollongong, Australia, July 2013.
30. G. Jolliffe, **G. Alici**, “Quantifying the positioning resolution of cantilever-type electroactive polymer actuators”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.868 -- 875, Wollongong, Australia, July 2013.
31. X. Xiang, **G. Alici**, W. Li, “Control of Conducting Polymer Actuators without feedback: Simulated Feedback Control Approach”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.900 -- 905, Wollongong, Australia, July 2013.
32. M. Li, W. Li, **G. Alici**, “Dielectrophoretic manipulation and separation of microparticles in an S-shaped microchannel integrated with multiple hurdles”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.362—366, Wollongong, Australia, July 2013.
33. T. Tian, W. Li, J. Ding, **G. Alici**, Haiping Du, “Study of the temperature effect of shear thickening fluid”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.833 -- 837, Wollongong, Australia, July 2013.
34. P. Nugroho, H. Du, W. Li, **G. Alici**, “Implementation of Adaptive Neuro Fuzzy Inference System controller On Magneto Rheological Damper Suspension”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.1399 -- 1403, Wollongong, Australia, July 2013.
35. J. Zhang, M. Li, W. Li, **G. Alici**, “Investigation of Trapping Process in “Centrifuge-on-a-chip” “,2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.1266 -- 1271, Wollongong, Australia, July 2013.
36. S. van Duin, C. Cook, **G. Alici**, Z. Li, “Pulse Shaping of an Impulse Controller to Improve Precision of Machines with Friction”, 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.1133 -- 1139, Wollongong, Australia, July 2013.
37. C. H. Nyugen, **G. Alici**, and G. G. Wallace, “An Enhanced Model and Its use in Control of a Trilayer Conjugated Polymer Actuator for a Cochlear Implant”, International Conference on Control, Automation and Systems Engineering, Rome, Italy, September 2012.
38. H. Zhou, **G. Alici**, T. Than, and W. Li, "Modeling and Experimental Investigation of Viscoelastic Contact between a spiral-type Robotic Capsule and a

- Gastrointestinal Tract", 2012 IEEE International Conference on Robotics and Biomimetics, pp., Guangzhou, China, December 11—14, 2012.
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 42. G.R. Peng, W.H. Li, H. Du, **G. Alici**, H.X. Deng, "Modeling of a Magneto-rheological damper with force-lag phenomenon," In Y. Gu & S. Saha (Eds.), *the 4th Int Conf. on Computational Methods*, (pp. 1-12).
 43. R. Mutlu **G. Alici** and W. Li "Kinematic Modeling for Artificial Flagellum of a Bacterium Based on Electroactive Polymers", 2011 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.440 – 445, Budapest, Hungary, July 2011.
 44. H. Zhou, **G. Alici**, W. Li, and S. Ghanbar " Experimental Characterization of a Robotic Drug Delivery System based on Magnetic Propulsion", 2011 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.209 – 214, Budapest, Hungary, July 2011.
 45. B. Gaihre, **G. Alici**, G. Spinks, and J. Cairney, "Fabrication of Microhands based on electroactive polymer actuators", 15th International Conference on Mechatronics Technology, pp.145-149, November 30- December 2, 2011, Melbourne, Australia.
 46. M. Guo, G. Hu, W.H. Li, and **G. Alici**, "Vibration Characteristics of Sandwich Beam with MR Fluid under Non-homogeneous Magnetic Field", 15th International Conference on Mechatronics Technology, pp.97-100, November 30- December 2, 2011, Melbourne, Australia.
 47. C. Tang, and **G. Alici**, "An Efficient Methodology for Modelling Nonlinear Deflection of Thin Cantilever Beams for Microelectromechanical Systems", 15th International Conference on Mechatronics Technology, pp.186 -- 192, November 30- December 2, 2011, Melbourne, Australia.

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49. G. R. Peng, W. H. Li, G. Hu, and **G. Alici**, “Design and Simulation of a Self-Sensing MR Damper”, 15th International Conference on Mechatronics Technology, pp.112-117, November 30- December 2, 2011, Melbourne, Australia. (*Received the best paper award.*)
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51. R. Mutlu and **G. Alici**, "A Stiffness Enhancement Methodology for Artificial Muscles", 2010 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, pp.151 – 156, Montreal, Canada, 6-9 July 2010.
52. F. Carpi, H.E. Kiil, R. Kornbluh, P. Sommer-Larsen, and **G. Alici**, “Electroactive Polymer Actuators: From Lab to Market”, ACTUATOR 2010, 12th International Conference on New Actuators, pp. 405 – 417, Bremen, Germany, 14–16 June 2010.
53. C. C. Lee, B. Gaihre, G. M. Spinks, **G. Alici**, and J. M. Cairney, “Methods Developed for the Fabrication of a Thermally-Induced Polypyrrole Bilayer Micro/Nanoactuator”, IEEE 2010 International Conference on Nanoscience and Nanotechnology (ICONN 2010), pp. 214 – 217, Sydney, February 2010.
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