# Hiroyuki Nabae

List of Publications by Year
in descending order



| 46 | 743 | 623734 | 580821 |
|---|---|---|---|
| papers | citations | 14 h-index | 25 g-index |

| 46 | 46 | 46 | 550 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Design of thin McKibben muscle and multifilament structure. Sensors and Actuators A: Physical, 2017, 261, 66-74. | 4.1 | 106 |
| 2 | Musculoskeletal lower-limb robot driven by multifilament muscles. ROBOMECH Journal, 2016, 3, . | 1.6 | 100 |
| 3 | Fabrication of â€œ18 Weaveâ€•Muscles and Their Application to Soft Power Support Suit for Upper Limbs Using Thin McKibben Muscle. IEEE Robotics and Automation Letters, 2019, 4, 2532-2538. | 5.1 | 53 |
| 4 | Braiding Thin McKibben Muscles to Enhance Their Contracting Abilities. IEEE Robotics and Automation Letters, 2018, 3, 3240-3246. | 5.1 | 35 |
| 5 | Active Textile Braided in Three Strands with Thin McKibben Muscle. Soft Robotics, 2019, 6, 250-262. | 8.0 | 32 |
| 6 | New Soft Robot Hand Configuration With Combined Biotensegrity and Thin Artificial Muscle. IEEE Robotics and Automation Letters, 2020, 5, 4345-4351. | 5.1 | 31 |
| 7 | Development of a 20-m-long Giacometti arm with balloon body based on kinematic model with air resistance. , 2017, , . | | 29 |
| 8 | Muscle textile to implement soft suit to shift balancing posture of the body. , 2018, , . | | 29 |
| 9 | A proposal of a new rotational-compliant joint with oil-hydraulic McKibben artificial muscles. Advanced Robotics, 2018, 32, 511-523. | 1.8 | 25 |
| 10 | IPMC Monolithic Thin Film Robots Fabricated Through a Multi-Layer Casting Process. IEEE Robotics and Automation Letters, 2019, 4, 1335-1342. | 5.1 | 25 |
| 11 | Electrically-Driven Soft Fluidic Actuators Combining Stretchable Pumps With Thin McKibben Muscles. Frontiers in Robotics and AI, 2019, 6, 146. | 3.2 | 24 |
| 12 | A novel manipulation method of human body ownership using an fMRI-compatible masterâ€“slave system. Journal of Neuroscience Methods, 2014, 235, 25-34. | 2.5 | 22 |
| 13 | Soft Tensegrity Robot Driven by Thin Artificial Muscles for the Exploration of Unknown Spatial Configurations. IEEE Robotics and Automation Letters, 2022, 7, 5349-5356. | 5.1 | 21 |
| 14 | Recurrent Braiding of Thin McKibben Muscles to Overcome Their Limitation of Contraction. Soft Robotics, 2020, 7, 251-258. | 8.0 | 19 |
| 15 | Design of a weight-compensated and coupled tendon-driven articulated long-reach manipulator. , 2016, , . | | 18 |
| 16 | A Novel Rubber Hand Illusion Paradigm Allowing Active Self-Touch With Variable Force Feedback Controlled by a Haptic Device. IEEE Transactions on Human-Machine Systems, 2016, 46, 78-87. | 3.5 | 16 |
| 17 | Modeling of Synthetic Fiber Ropes and Frequency Response of Long-Distance Cableâ€“Pulley System. IEEE Robotics and Automation Letters, 2018, 3, 1743-1750. | 5.1 | 16 |
| 18 | Untethered three-arm pneumatic robot using hose-free pneumatic actuator. , 2016, , . | | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Shape Recognition of a Tensegrity With Soft Sensor Threads and Artificial Muscles Using a Recurrent Neural Network. IEEE Robotics and Automation Letters, 2021, 6, 6228-6234. | 5.1 | 13 |
| 20 | Giraffe Neck Robot: First Step Toward a Powerful and Flexible Robot Prototyping Based on Giraffe Anatomy. IEEE Robotics and Automation Letters, 2022, 7, 3539-3546. | 5.1 | 13 |
| 21 | Bundled Wire Drive: Proposal and Feasibility Study of a Novel Tendon-Driven Mechanism Using Synthetic Fiber Ropes. IEEE Robotics and Automation Letters, 2019, 4, 966-972. | 5.1 | 11 |
| 22 | A Proposal of Super Long Reach Articulated Manipulator with Gravity Compensation using Thrusters. , 2018, , . | | 9 |
| 23 | Super-low friction and lightweight hydraulic cylinder using multi-directional forging magnesium alloy and its application to robotic leg. Advanced Robotics, 2018, 32, 524-534. | 1.8 | 7 |
| 24 | Effect of elastic element on self-excited electrostatic actuator. Sensors and Actuators A: Physical, 2018, 279, 725-732. | 4.1 | 7 |
| 25 | Soft Polymer-Electrolyte-Fuel-Cell Tube Realizing Air-Hose-Free Thin McKibben Muscles. , 2019, , . | | 7 |
| 26 | PF-IPMC: Paper/Fabric Assisted IPMC Actuators for 3D Crafts. IEEE Robotics and Automation Letters, 2020, 5, 4035-4041. | 5.1 | 7 |
| 27 | Self-excitation pneumatic soft actuator inspired by vocal cords. Sensors and Actuators A: Physical, 2021, 331, 112816. | 4.1 | 7 |
| 28 | Spiral Mecanum Wheel achieving omnidirectional locomotion in step-climbing. , 2017, , . | | 6 |
| 29 | Development of Hiryu-II: A Long-Reach Articulated Modular Manipulator Driven by Thrusters. IEEE Robotics and Automation Letters, 2020, 5, 4963-4969. | 5.1 | 6 |
| 30 | Hose-free pneumatic bags-muscle driven by gas/liquid conversion. , 2016, , . | | 5 |
| 31 | Proposal of tendon-driven elastic telescopic arm and initial bending experiment. , 2017, , . | | 4 |
| 32 | Proposal and Prototyping of Self-Excited Pneumatic Actuator Using Automatic-Flow-Path-Switching-Mechanism. IEEE Robotics and Automation Letters, 2020, 5, 3058-3065. | 5.1 | 4 |
| 33 | Pneumatic Soft Actuator Using Self-Excitation Based on Automatic-Jet-Switching-Structure. IEEE Robotics and Automation Letters, 2020, 5, 4042-4048. | 5.1 | 4 |
| 34 | Tension Control Method Utilizing Antagonistic Tension to Enlarge the Workspace of Coupled Tendon-Driven Articulated Manipulator. IEEE Robotics and Automation Letters, 2021, 6, 6647-6653. | 5.1 | 4 |
| 35 | Tendon-driven Elastic Telescopic Arm -Integration of Linear Motion and Bending Motion-. , 2020, , . | | 3 |
| 36 | A small water flow control valve using particle excitation by PZT vibrator. The Abstracts of the International Conference on Advanced Mechatronics Toward Evolutionary Fusion of IT and Mechatronics ICAM, 2015, 2015.6, 221-222. | 0.0 | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Simultaneous 3D Forming and Patterning Method of Realizing Soft IPMC Robots. , 2020, , . | | 2 |
| 38 | Experimental comparison of antagonistic hydraulic muscle actuation under single/dual and zero/overlapped servovalve configurations. Mechatronics, 2022, 83, 102737. | 3.3 | 2 |
| 39 | Three-Dimensional Ion Polymerâ€“Metal Composite Soft Robots. Journal of Robotics and Mechatronics, 2022, 34, 231-233. | 1.0 | 2 |
| 40 | Analytical and experimental study on actuation time of displacement amplified electromagnetic actuator. , 2017, , . | | 1 |
| 41 | Frequency Response of Honeycomb Structured IPMC Actuator Fabricated through 3D Printing with Dispersion Liquid. , 2019, , . | | 1 |
| 42 | Design and Fabrication of 3D Papercraft IPMC Robots. , 2022, , . | | 1 |
| 43 | Notice of Removal: A small three-way valve for hydraulic actuators using piezoelectric transducers. , 2017, , . | | 0 |
| 44 | Reduction of Residual Vibration in Displacement-Amplified Micro-Electromagnetic Actuators with Non-linear Dynamics Using Input Shaping. , 2018, , . | | 0 |
| 45 | Experimental Verification of Impact Absorbing Property of Wire Driven Joint with Synthetic Fiber Rope. , 2020, , . | | 0 |
| 46 | Design of a Guide Pulley Achieving Identical Wire Path Length for a Double Joint Mechanism. , 2020, , . | | 0 |