

# Poramate Manoonpong

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4696888/publications.pdf>

Version: 2024-02-01

147  
papers

2,216  
citations

236925

25  
h-index

302126

39  
g-index

162  
all docs

162  
docs citations

162  
times ranked

1342  
citing authors

#	ARTICLE	IF	CITATIONS
1	Generic Mechanism for Waveform Regulation and Synchronization of Oscillators: An Application for Robot Behavior Diversity Generation. IEEE Transactions on Cybernetics, 2022, 52, 4495-4507.	9.5	3
2	No Need for Landmarks: An Embodied Neural Controller for Robust Insect-Like Navigation Behaviors. IEEE Transactions on Cybernetics, 2022, 52, 12893-12904.	9.5	5
3	Visual Goal Human-Robot Communication Framework With Few-Shot Learning: A Case Study in Robot Waiter System. IEEE Transactions on Industrial Informatics, 2022, 18, 1883-1891.	11.3	14
4	A Compliant Leg Structure for Terrestrial and Aquatic Walking Robots. Lecture Notes in Networks and Systems, 2022, , 69-80.	0.7	0
5	Continuous Online Adaptation of Bioinspired Adaptive Neuroendocrine Control for Autonomous Walking Robots. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 1833-1845.	11.3	14
6	Learning-Based Multifunctional Elbow Exoskeleton Control. IEEE Transactions on Industrial Electronics, 2022, 69, 9216-9224.	7.9	6
7	Fin Ray Crossbeam Angles for Efficient Foot Design for Energy-Efficient Robot Locomotion. Advanced Intelligent Systems, 2022, 4, 2100133.	6.1	3
8	GRAB: GRADient-Based Shape-Adaptive Locomotion Control. IEEE Robotics and Automation Letters, 2022, 7, 1087-1094.	5.1	1
9	Versatile modular neural locomotion control with fast learning. Nature Machine Intelligence, 2022, 4, 169-179.	16.0	9
10	Electromagnetic Feet With Soft Toes for Adaptive, Versatile, and Stable Locomotion of an Inchworm-Inspired Pipe Crawling Robot. Frontiers in Bioengineering and Biotechnology, 2022, 10, 842816.	4.1	4
11	A gecko-inspired robot with CPG-based neural control for locomotion and body height adaptation. Bioinspiration and Biomimetics, 2022, 17, 036008.	2.9	11
12	Editorial: Biological and Robotic Inter-Limb Coordination. Frontiers in Robotics and AI, 2022, 9, 875493.	3.2	0
13	Network Architecture Producing Swing to Stance Transitions in an Insect Walking System. Frontiers in Insect Science, 2022, 2, .	2.1	0
14	Neural Control and Online Learning for Speed Adaptation of Unmanned Aerial Vehicles. Frontiers in Neural Circuits, 2022, 16, 839361.	2.8	2
15	Generic Neural Locomotion Control Framework for Legged Robots. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 4013-4025.	11.3	30
16	Modular Neural Control for Gait Adaptation and Obstacle Avoidance of a Tailless Gecko Robot. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 101, 1.	3.4	8
17	Advanced Collaborative Robots for the Factory of the Future. , 2021, , .		1
18	Integrating Non-spiking Interneurons in Spiking Neural Networks. Frontiers in Neuroscience, 2021, 15, 633945.	2.8	7

#	ARTICLE	IF	CITATIONS
19	A Low-Cost, Compact, Sealed, Three-Axis Force/Torque Sensor for Walking Robots. IEEE Sensors Journal, 2021, 21, 8916-8926.	4.7	14
20	A Comparative Study of Adaptive Interlimb Coordination Mechanisms for Self-Organized Robot Locomotion. Frontiers in Robotics and AI, 2021, 8, 638684.	3.2	6
21	VENOM: Versatile, Adhesive, and Soft Material for Various Surface Adhesion. , 2021, , .		2
22	Editorial: Integrated Multi-modal and Sensorimotor Coordination for Enhanced Human-Robot Interaction. Frontiers in Neurorobotics, 2021, 15, 673659.	2.8	0
23	Getting grip in changing environments: the effect of friction anisotropy inversion on robot locomotion. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	6
24	Echo State Networks for Estimating Exteroceptive Conditions From Proprioceptive States in Quadruped Robots. Frontiers in Neurorobotics, 2021, 15, 655330.	2.8	7
25	Mini Review: Comparison of Bio-Inspired Adhesive Feet of Climbing Robots on Smooth Vertical Surfaces. Frontiers in Bioengineering and Biotechnology, 2021, 9, 765718.	4.1	7
26	Lateral Undulation of the Bendable Body of a Gecko-Inspired Robot for Energy-Efficient Inclined Surface Climbing. IEEE Robotics and Automation Letters, 2021, 6, 7917-7924.	5.1	20
27	Distributed-force-feedback-based reflex with online learning for adaptive quadruped motor control. Neural Networks, 2021, 142, 410-427.	5.9	12
28	Online sensorimotor learning and adaptation for inverse dynamics control. Neural Networks, 2021, 143, 525-536.	5.9	3
29	A Variable Soft Finger Exoskeleton for Quantifying Fatigue-induced Mechanical Impedance. , 2021, , .		3
30	The SMOOTH-Robot: A Modular, Interactive Service Robot. Frontiers in Robotics and AI, 2021, 8, 645639.	3.2	6
31	Insect-Inspired Robots: Bridging Biological and Artificial Systems. Sensors, 2021, 21, 7609.	3.8	32
32	Locomotion Control With Frequency and Motor Pattern Adaptations. Frontiers in Neural Circuits, 2021, 15, 743888.	2.8	9
33	NeuroVis: Real-Time Neural Information Measurement and Visualization of Embodied Neural Systems. Frontiers in Neural Circuits, 2021, 15, 743101.	2.8	2
34	Morphological Adaptation for Speed Control of Pipeline Inspection Gauges MC-PIG. , 2021, , .		0
35	Error-Based Learning Mechanism for Fast Online Adaptation in Robot Motor Control. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 2042-2051.	11.3	15
36	SMOOTH Robot: Design for a Novel Modular Welfare Robot. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 98, 19-37.	3.4	19

#	ARTICLE	IF	CITATIONS
37	A Single-Channel Consumer-Grade EEG Device for Brain-Computer Interface: Enhancing Detection of SSVEP and Its Amplitude Modulation. <i>IEEE Sensors Journal</i> , 2020, 20, 3366-3378.	4.7	33
38	Closed-loop dynamic computations for adaptive behavior (articles based on SAB2018 conference). <i>Adaptive Behavior</i> , 2020, 28, 125-127.	1.9	1
39	Adaptive parallel reflex- and decoupled CPG-based control for complex bipedal locomotion. <i>Robotics and Autonomous Systems</i> , 2020, 134, 103663.	5.1	9
40	Decoding EEG Rhythms During Action Observation, Motor Imagery, and Execution for Standing and Sitting. <i>IEEE Sensors Journal</i> , 2020, 20, 13776-13786.	4.7	58
41	Bio-Inspired Adaptive Locomotion Control System for Online Adaptation of a Walking Robot on Complex Terrains. <i>IEEE Access</i> , 2020, 8, 91587-91602.	4.2	13
42	Editorial: Biology-Inspired Engineering and Engineering-Inspired Biology. <i>Frontiers in Neurorobotics</i> , 2020, 14, 614683.	2.8	1
43	AHEAD: Automatic Holistic Energy-Aware Design Methodology for MLP Neural Network Hardware Generation in Proactive BMI Edge Devices. <i>Energies</i> , 2020, 13, 2180.	3.1	2
44	Framework for Developing Bio-Inspired Morphologies for Walking Robots. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 6986.	2.5	11
45	General Distributed Neural Control and Sensory Adaptation for Self-Organized Locomotion and Fast Adaptation to Damage of Walking Robots. <i>Frontiers in Neural Circuits</i> , 2020, 14, 46.	2.8	14
46	Virtual Motoneuron Activation for Goal-directed Locomotion of a Hexapod Robot. , 2020, , .		0
47	iCrawl: An Inchworm-Inspired Crawling Robot. <i>IEEE Access</i> , 2020, 8, 200655-200668.	4.2	30
48	Rules for the Leg Coordination of Dung Beetle Ball Rolling Behaviour. <i>Scientific Reports</i> , 2020, 10, 9278.	3.3	6
49	Hybrid soft-rigid foot with dry adhesive material designed for a gecko-inspired climbing robot. , 2020, , .		12
50	Flexible Spiking CPGs for Online Manipulation During Hexapod Walking. <i>Frontiers in Neurorobotics</i> , 2020, 14, 41.	2.8	20
51	Small-Sized Reconfigurable Quadruped Robot With Multiple Sensory Feedback for Studying Adaptive and Versatile Behaviors. <i>Frontiers in Neurorobotics</i> , 2020, 14, 14.	2.8	40
52	Adaptive Neural CPG-Based Control for a Soft Robotic Tentacle. <i>Lecture Notes in Computer Science</i> , 2020, , 762-774.	1.3	2
53	Adaptive Neural Control for Efficient Rhythmic Movement Generation and Online Frequency Adaptation of a Compliant Robot Arm. <i>Communications in Computer and Information Science</i> , 2020, , 695-703.	0.5	2
54	Dynamical State Forcing on Central Pattern Generators for Efficient Robot Locomotion Control. <i>Lecture Notes in Computer Science</i> , 2020, , 799-810.	1.3	1

#	ARTICLE	IF	CITATIONS
55	Robust Actuator Fault Diagnosis Algorithm for Autonomous Hexacopter UAVs. IFAC-PapersOnLine, 2020, 53, 682-687.	0.9	8
56	Adaptive Neuromechanical Control for Robust Behaviors of Bio-Inspired Walking Robots. Lecture Notes in Computer Science, 2020, , 775-786.	1.3	4
57	Autobot for Effective Design Space Exploration and Agile Generation of RBFNN Hardware Accelerator in Embedded Real-time Computing. , 2020, , .		0
58	End-to-End Rapid FPGA Prototyping for Embedded Proactive BMI Control. , 2020, , .		0
59	A Fast Online Frequency Adaptation Mechanism for CPG-Based Robot Motion Control. IEEE Robotics and Automation Letters, 2019, 4, 3324-3331.	5.1	26
60	A scalable Echo State Networks hardware generator for embedded systems using high-level synthesis. , 2019, , .		6
61	Neural computational model GrowthEstimate: A model for studying living resources through digestive efficiency. PLoS ONE, 2019, 14, e0216030.	2.5	4
62	Teaching Hardware Implementation of Neural Networks using High-Level Synthesis in Less Than Four Hours for Engineering Education of Intelligent Embedded Computing. , 2019, , .		3
63	Neural Control with an Artificial Hormone System for Energy-Efficient Compliant Terrain Locomotion and Adaptation of Walking Robots. , 2019, , .		3
64	Neural Control for Gait Generation and Adaptation of a Gecko Robot. , 2019, , .		4
65	A neuroplasticity-inspired neural circuit for acoustic navigation with obstacle avoidance that learns smooth motion paths. Neural Computing and Applications, 2019, 31, 1765-1781.	5.6	4
66	CPG Driven RBF Network Control with Reinforcement Learning for Gait Optimization of a Dung Beetle-Like Robot. Lecture Notes in Computer Science, 2019, , 698-710.	1.3	18
67	Concurrent intramodal learning enhances multisensory responses of symmetric crossmodal learning in robotic audio-visual tracking. Cognitive Systems Research, 2019, 54, 138-153.	2.7	4
68	Haptic Feedback with a Reservoir Computing-Based Recurrent Neural Network for Multiple Terrain Classification of a Walking Robot. Lecture Notes in Computer Science, 2019, , 233-244.	1.3	1
69	Inversion of friction anisotropy in a bio-inspired asymmetrically structured surface. Journal of the Royal Society Interface, 2018, 15, 20170629.	3.4	46
70	A Bio-inspired Climbing Robot with Flexible Pads and Claws. Journal of Bionic Engineering, 2018, 15, 368-378.	5.0	47
71	Adaptive Motor Control for Human-like Spatial-temporal Adaptation. , 2018, , .		25
72	Adaptive neural control for self-organized locomotion and obstacle negotiation of quadruped robots. , 2018, , .		9

#	ARTICLE	IF	CITATIONS
73	Development of a Real-Time Motor-Imagery-Based EEG Brain-Machine Interface. Lecture Notes in Computer Science, 2018, , 610-622.	1.3	2
74	Bio-inspired design and movement generation of dung beetle-like legs. Artificial Life and Robotics, 2018, 23, 555-563.	1.2	7
75	Editorial: Neural Computation in Embodied Closed-Loop Systems for the Generation of Complex Behavior: From Biology to Technology. Frontiers in Neurobotics, 2018, 12, 53.	2.8	5
76	Development of Autonomous Drones for Adaptive Obstacle Avoidance in Real World Environments. , 2018, , .		21
77	Modular Neural Control for Bio-Inspired Walking and Ball Rolling of a Dung Beetle-Like Robot. , 2018, , .		4
78	Lateral undulation of the flexible spine of sprawling posture vertebrates. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2018, 204, 707-719.	1.6	15
79	Modular Neural Mechanisms for Gait Phase Tracking, Prediction, and Selection in Personalizable Knee-Ankle-Foot-Orthoses. Frontiers in Neurobotics, 2018, 12, 37.	2.8	3
80	A dung beetle-inspired robotic model and its distributed sensor-driven control for walking and ball rolling. Artificial Life and Robotics, 2018, 23, 435-443.	1.2	6
81	Simple analytical model reveals the functional role of embodied sensorimotor interaction in hexapod gaits. PLoS ONE, 2018, 13, e0192469.	2.5	36
82	Towards Crossmodal Learning for Smooth Multimodal Attention Orientation. Lecture Notes in Computer Science, 2018, , 318-328.	1.3	2
83	Neural Control and Synaptic Plasticity for Adaptive Obstacle Avoidance of Autonomous Drones. Lecture Notes in Computer Science, 2018, , 177-188.	1.3	2
84	Cylindrical Terrain Classification Using a Compliant Robot Foot with a Flexible Tactile-Array Sensor for Legged Robots. Lecture Notes in Computer Science, 2018, , 136-146.	1.3	3
85	Online Gait Adaptation of a Hexapod Robot Using an Improved Artificial Hormone Mechanism. Lecture Notes in Computer Science, 2018, , 212-222.	1.3	3
86	Predictive Acoustic Tracking with an Adaptive Neural Mechanism. Procedia Computer Science, 2017, 105, 99-104.	2.0	0
87	An Adaptive Neural Mechanism for Acoustic Motion Perception with Varying Sparsity. Frontiers in Neurobotics, 2017, 11, 11.	2.8	2
88	Fast Dynamical Coupling Enhances Frequency Adaptation of Oscillators for Robotic Locomotion Control. Frontiers in Neurobotics, 2017, 11, 14.	2.8	33
89	A Neurocomputational Model of Goal-Directed Navigation in Insect-Inspired Artificial Agents. Frontiers in Neurobotics, 2017, 11, 20.	2.8	26
90	Adaptive Control Strategies for Interlimb Coordination in Legged Robots: A Review. Frontiers in Neurobotics, 2017, 11, 39.	2.8	116

#	ARTICLE	IF	CITATIONS
91	Enhanced Locomotion Efficiency of a Bio-inspired Walking Robot using Contact Surfaces with Frictional Anisotropy. Scientific Reports, 2016, 6, 39455.	3.3	36
92	Modular Neural Control for Object Transportation of a Bio-inspired Hexapod Robot. Lecture Notes in Computer Science, 2016, , 67-78.	1.3	1
93	A robot leg with compliant tarsus and its neural control for efficient and adaptive locomotion on complex terrains. Artificial Life and Robotics, 2016, 21, 274-281.	1.2	18
94	Adaptive Combinatorial Neural Control for Robust Locomotion of a Biped Robot. Lecture Notes in Computer Science, 2016, , 317-328.	1.3	3
95	An Adaptive Neural Mechanism with a Lizard Ear Model for Binaural Acoustic Tracking. Lecture Notes in Computer Science, 2016, , 79-90.	1.3	3
96	Adaptive and Energy Efficient Walking in a Hexapod Robot Under Neuromechanical Control and Sensorimotor Learning. IEEE Transactions on Cybernetics, 2016, 46, 2521-2534.	9.5	64
97	Artificial Neural Network Based Compliant Control for Robot Arms. Lecture Notes in Computer Science, 2016, , 91-100.	1.3	2
98	Distributed recurrent neural forward models with synaptic adaptation and CPG-based control for complex behaviors of walking robots. Frontiers in Neurorobotics, 2015, 9, 10.	2.8	28
99	Synaptic plasticity in a recurrent neural network for versatile and adaptive behaviors of a walking robot. Frontiers in Neurorobotics, 2015, 9, 11.	2.8	28
100	A neural path integration mechanism for adaptive vector navigation in autonomous agents. , 2015, , .		6
101	Multiple chaotic central pattern generators with learning for legged locomotion and malfunction compensation. Information Sciences, 2015, 294, 666-682.	6.9	43
102	Biologically-inspired adaptive obstacle negotiation behavior of hexapod robots. Frontiers in Neurorobotics, 2014, 8, 3.	2.8	37
103	Neuromodulatory adaptive combination of correlation-based learning in cerebellum and reward-based learning in basal ganglia for goal-directed behavior control. Frontiers in Neural Circuits, 2014, 8, 126.	2.8	19
104	Reinforcement learning approach to generate goal-directed locomotion of a snake-like robot with screw-drive units. , 2014, , .		7
105	Reservoir-based online adaptive forward models with neural control for complex locomotion in a hexapod robot. , 2014, , .		6
106	Neuromechanical control for hexapedal robot walking on challenging surfaces and surface classification. Robotics and Autonomous Systems, 2014, 62, 1777-1789.	5.1	21
107	Reservoir of neurons with adaptive time constants: a hybrid model for robust motor-sensory temporal processing. BMC Neuroscience, 2014, 15, .	1.9	1
108	INTERNAL MODELS SUPPORT SPECIFIC GAITS IN ORTHOTIC DEVICES. , 2014, , .		0

#	ARTICLE	IF	CITATIONS
109	Virtual agonist-antagonist mechanisms produce biological muscle-like functions. <i>Industrial Robot</i> , 2014, 41, 340-346.	2.1	14
110	Biologically inspired modular neural control for a leg-wheel hybrid robot. <i>Advances in Robotics Research</i> , 2014, 1, 101-126.	0.1	7
111	Adaptive Landmark-Based Navigation System Using Learning Techniques. <i>Lecture Notes in Computer Science</i> , 2014, , 121-131.	1.3	2
112	COMPARING ARC-SHAPED FEET AND RIGID ANKLES WITH FLAT FEET AND COMPLIANT ANKLES FOR A DYNAMIC WALKER. , 2014, , .		0
113	Information dynamics based self-adaptive reservoir for delay temporal memory tasks. <i>Evolving Systems</i> , 2013, 4, 235-249.	3.9	36
114	Visual terrain classification for selecting energy efficient gaits of a hexapod robot. , 2013, , .		38
115	COMBINING CORRELATION-BASED AND REWARD-BASED LEARNING IN NEURAL CONTROL FOR POLICY IMPROVEMENT. <i>International Journal of Modeling, Simulation, and Scientific Computing</i> , 2013, 16, 1350015.	1.4	10
116	Neural Combinatorial Learning of Goal-Directed Behavior with Reservoir Critic and Reward Modulated Hebbian Plasticity. , 2013, , .		3
117	Adaptive neural oscillators with synaptic plasticity for locomotion control of a snake-like robot with screw-drive mechanism. , 2013, , .		11
118	Stability analysis of a hexapod robot driven by distributed nonlinear oscillators with a phase modulation mechanism. , 2013, , .		28
119	Neural control and adaptive neural forward models for insect-like, energy-efficient, and adaptable locomotion of walking machines. <i>Frontiers in Neural Circuits</i> , 2013, 7, 12.	2.8	119
120	A SIMPLIFIED VARIABLE ADMITTANCE CONTROLLER BASED ON A VIRTUAL AGONIST-ANTAGONIST MECHANISM FOR ROBOT JOINT CONTROL. , 2013, , .		6
121	OBSTACLE/GAP DETECTION AND TERRAIN CLASSIFICATION OF WALKING ROBOTS BASED ON A 2D LASER RANGE FINDER. , 2013, , .		5
122	NEURAL CONTROL OF A THREE-LEGGED RECONFIGURABLE ROBOT WITH OMNIDIRECTIONAL WHEELS. , 2013, , .		1
123	Biologically inspired reactive climbing behavior of hexapod robots. , 2012, , .		20
124	Multiple chaotic central pattern generators for locomotion generation and leg damage compensation in a hexapod robot. , 2012, , .		9
125	Adaptive Neural Oscillator with Synaptic Plasticity Enabling Fast Resonance Tuning. <i>Lecture Notes in Computer Science</i> , 2012, , 451-458.	1.3	6
126	Compliant ankles and flat feet for improved self-stabilization and passive dynamics of the biped robot &#x201C;RunBot&#x201D;. , 2011, , .		5



#	ARTICLE	IF	CITATIONS
127	A PZT modeling for energy harvesting circuits. , 2011, , .		5
128	A reconfigurable spherical robot. , 2011, , .		10
129	Using efference copy and a forward internal model for adaptive biped walking. Autonomous Robots, 2010, 29, 357-366.	4.8	12
130	Self-organized adaptation of a simple neural circuit enables complex robot behaviour. Nature Physics, 2010, 6, 224-230.	16.7	182
131	Designing Simple Nonlinear Filters Using Hysteresis of Single Recurrent Neurons for Acoustic Signal Recognition in Robots. Lecture Notes in Computer Science, 2010, , 374-383.	1.3	1
132	Extraction of Reward-Related Feature Space Using Correlation-Based and Reward-Based Learning Methods. Lecture Notes in Computer Science, 2010, , 414-421.	1.3	2
133	The development of a biomechanical leg system and its neural control. , 2009, , .		1
134	Efference copies in neural control of dynamic biped walking. Robotics and Autonomous Systems, 2009, 57, 1140-1153.	5.1	21
135	Neural preprocessing of auditory-wind sensory signals and modular neural control for auditory- and wind-evoked escape responses of walking machines. , 2009, , .		3
136	Sensor-driven neural control for omnidirectional locomotion and versatile reactive behaviors of walking machines. Robotics and Autonomous Systems, 2008, 56, 265-288.	5.1	83
137	Neural Control and Learning for Versatile, Adaptive, Autonomous Behavior of Walking Machines. , 2008, , .		1
138	Modular Reactive Neurocontrol for Biologically Inspired Walking Machines. International Journal of Robotics Research, 2007, 26, 301-331.	8.5	27
139	The RunBot Architecture for Adaptive, Fast, Dynamic Walking. , 2007, , .		9
140	Adaptive, Fast Walking in a Biped Robot under Neuronal Control and Learning. PLoS Computational Biology, 2007, 3, e134.	3.2	83
141	Dynamical Systems in the Sensorimotor Loop: On the Interrelation Between Internal and External Mechanisms of Evolved Robot Behavior. Lecture Notes in Computer Science, 2007, , 186-195.	1.3	12
142	Exploring the dynamic walking range of the biped robot "Run Bot" with an active upper-body component. , 2006, , .		4
143	Neural Processing of Auditory Signals and Modular Neural Control for Sound Tropism of Walking Machines. International Journal of Advanced Robotic Systems, 2005, 2, 22.	2.1	7
144	Modular neural control for a reactive behavior of walking machines. , 2005, , .		4

#	ARTICLE	IF	CITATIONS
145	Learning and Chaining of Motor Primitives for Goal-directed Locomotion of a Snakelike Robot with Screw-drive Units. International Journal of Advanced Robotic Systems, 0, , 1.	2.1	3
146	A Neuromechanical Controller of a Hexapod Robot for Walking on Sponge, Gravel and Snow Surfaces. , 0, , .		3
147	The Roles and Comparison of Rigid and Soft Tails in Gecko-Inspired Climbing Robots: A Mini-Review. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	1