

# Yunong Zhang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

412  
papers

8,311  
citations

51  
h-index

78  
g-index

530  
ext. papers

10,710  
ext. citations

4.1  
avg, IF

6.91  
L-index

#	Paper	IF	Citations
412	Discrete-time future nonlinear neural optimization with equality constraint based on ten-instant ZTD formula. <i>Neurocomputing</i> , <b>2022</b> , 488, 444-456	5.4	0
411	Discrete-time ZNN-based noise-handling ten-instant algorithm solving Yang-Baxter-like matrix equation with disturbances. <i>Neurocomputing</i> , <b>2022</b> , 488, 391-401	5.4	
410	Tracking Control for Triple-Integrator and Quintuple-Integrator Systems with Single Input Using Zhang Neural Network with Time Delay Caused by Backward Finite-Divided Difference Formulas for Multiple-Order Derivatives. <i>Mathematics</i> , <b>2022</b> , 10, 1440	2.3	0
409	Introduction, Concepts and Preliminaries <b>2021</b> , 1-12		
408	Pendulum Tracking Control of IPC System <b>2021</b> , 157-175		
407	GD-Aided IOL Tracking Control of AFN System <b>2021</b> , 179-194		
406	ZG Trajectory Generation of Van der Pol Oscillator <b>2021</b> , 195-206		
405	PDBZ and TDBZ Problem Solving and Comparing <b>2021</b> , 229-245		
404	ZG Output Tracking of TVL System with DBZ Handled <b>2021</b> , 249-256		
403	ZG Stabilization of TVL System with PDBZ Shown <b>2021</b> , 257		
402	ZG Output Tracking of TVL and TVN Systems <b>2021</b> , 271-280		
401	ZG Tracking Control of a Class of Chaotic Systems <b>2021</b> , 15-36		
400	ZG Synchronization of Lu and Chen Chaotic Systems <b>2021</b> , 37-47		
399	ZG Tracking Control of Modified Lorenz Nonlinear System <b>2021</b> , 49		
398	ZG Tracking Control of Brockett Integrator <b>2021</b> , 71-82		
397	ZG Tracking Control and Simulation of DI System <b>2021</b> , 83-98		
396	ZG Tracking Control of MI Systems <b>2021</b> , 99-120		

395	ZD and ZG Control of Simple Pendulum System <b>2021</b> , 123-130		
394	Cart Path Tracking Control of IPC System <b>2021</b> , 131-156		
393	From Penrose Equations to Zhang Neural Network, Getz Marsden Dynamic System, and DDD (Direct Derivative Dynamics) Using Substitution Technique. <i>Discrete Dynamics in Nature and Society</i> , <b>2021</b> , 2021, 1-21	1.1	
392	Pose control of constrained redundant arm using recurrent neural networks and one-iteration computing algorithm. <i>Applied Soft Computing Journal</i> , <b>2021</b> , 113, 108007	7.5	1
391	New Models for Solving Time-Varying LU Decomposition by Using ZNN Method and ZeaD Formulas. <i>Journal of Mathematics</i> , <b>2021</b> , 2021, 1-13	1.2	0
390	Relationship between time-instant number and precision of ZeaD formulas with proofs. <i>Numerical Algorithms</i> , <b>2021</b> , 88, 883-902	2.1	1
389	Continuous-Time Varying Complex QR Decomposition via Zeroing Neural Dynamics. <i>Neural Processing Letters</i> , <b>2021</b> , 53, 3573	2.4	7
388	Future Different-Layer Linear Equation and Bounded Inequality Solved by Combining Adams-Bashforth Methods With CZNN Model. <i>IEEE Transactions on Industrial Electronics</i> , <b>2021</b> , 68, 1515-1524	8.9	2
387	Inverse-Free Discrete ZNN Models Solving for Future Matrix Pseudoinverse via Combination of Extrapolation and ZeaD Formulas. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2021</b> , 32, 2663-2675	10.3	3
386	Continuous and discrete zeroing dynamics models using JMP function array and design formula for solving time-varying Sylvester-transpose matrix inequality. <i>Numerical Algorithms</i> , <b>2021</b> , 86, 1591-1614	2.1	2
385	Time-varying Schur decomposition via Zhang neural dynamics. <i>Neurocomputing</i> , <b>2021</b> , 419, 251-258	5.4	3
384	Posture coordination control of two-manipulator system using projection neural network. <i>Neurocomputing</i> , <b>2021</b> , 427, 179-190	5.4	2
383	General Ten-Instant DTDMSR Model for Dynamic Matrix Square Root Finding. <i>Cybernetics and Systems</i> , <b>2021</b> , 52, 127-143	1.9	3
382	. <i>IEEE Transactions on Industrial Informatics</i> , <b>2021</b> , 17, 5164-5174	11.9	2
381	Predict Ages of Future USA Presidents via SARIMA-Combined Sinusoidal BiWASDNN. <i>Advances in Intelligent Systems and Computing</i> , <b>2021</b> , 1722-1733	0.4	
380	Solving Complex-Valued Time-Varying Linear Matrix Equations via QR Decomposition With Applications to Robotic Motion Tracking and on Angle-of-Arrival Localization. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2021</b> , PP,	10.3	9
379	6-Step Discrete ZNN Model for Repetitive Motion Control of Redundant Manipulator. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2021</b> , 1-12	7.3	1
378	Jerk-Level Zhang Neurodynamics Equivalency of Bound Constraints, Equation Constraints, and Objective Indices for Cyclic Motion of Robot-Arm Systems. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2021</b> , PP,	10.3	1

377	Real-domain QR decomposition models employing zeroing neural network and time-discretization formulas for time-varying matrices. <i>Neurocomputing</i> , <b>2021</b> , 448, 217-227	5.4	1
376	Concise Discrete ZNN Controllers for End-Effector Tracking and Obstacle Avoidance of Redundant Manipulators. <i>IEEE Transactions on Industrial Informatics</i> , <b>2021</b> , 1-1	11.9	3
375	Unified Solution of Different-Kind Future Matrix Equations Using New Nine-Instant Discretization Formula and Zeroing Neural Dynamics. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2021</b> , 1-11	7.3	0
374	7-Instant Discrete-Time Synthesis Model Solving Future Different-Level Linear Matrix System via Equivalency of Zeroing Neural Network. <i>IEEE Transactions on Cybernetics</i> , <b>2021</b> , PP,	10.2	1
373	New-Type DTZ Model for Solving Discrete Time-Dependent Nonlinear Equation System With Robotic-Arm Application <b>2020</b> ,		1
372	Discrete-time nonlinear optimization via zeroing neural dynamics based on explicit linear multi-step methods for tracking control of robot manipulators. <i>Neurocomputing</i> , <b>2020</b> , 412, 477-485	5.4	4
371	Adaptive Discrete ZND Models for Tracking Control of Redundant Manipulator. <i>IEEE Transactions on Industrial Informatics</i> , <b>2020</b> , 16, 7360-7368	11.9	8
370	Output optimization of scalar and 2-dimension time-varying nonlinear systems using zeroing dynamics. <i>Asian Journal of Control</i> , <b>2020</b> , 23, 1643	1.7	1
369	Event-triggered zeroing dynamics for motion control of Stewart platform. <i>Journal of the Franklin Institute</i> , <b>2020</b> , 357, 6453-6470	4	1
368	Predictions of USA Presidential Parties From 2021 to 2037 Using Historical Data Through Square Wave-Activated WASD Neural Network. <i>IEEE Access</i> , <b>2020</b> , 8, 56630-56640	3.5	5
367	Future Linear Matrix Equation of Generalized Sylvester Type Solved by Zeroing Neural Dynamics and 5-Instant ZeaD Formula. <i>Advances in Intelligent Systems and Computing</i> , <b>2020</b> , 260-270	0.4	
366	GMDS-ZNN Model 3 and its Ten-Instant Discrete Algorithm for Time-Variant Matrix Inversion Compared With Other Multiple-Instant Ones. <i>IEEE Access</i> , <b>2020</b> , 8, 228188-228198	3.5	2
365	General and Improved Five-Step Discrete-Time Zeroing Neural Dynamics Solving Linear Time-Varying Matrix Equation with Unknown Transpose. <i>Neural Processing Letters</i> , <b>2020</b> , 51, 1715-1730	2.4	2
364	Online singular value decomposition of time-varying matrix via zeroing neural dynamics. <i>Neurocomputing</i> , <b>2020</b> , 383, 314-323	5.4	8
363	Discrete ZNN models of Adams-Bashforth (AB) type solving various future problems with motion control of mobile manipulator. <i>Neurocomputing</i> , <b>2020</b> , 384, 84-93	5.4	3
362	New zeroing neural dynamics models for diagonalization of symmetric matrix stream. <i>Numerical Algorithms</i> , <b>2020</b> , 85, 849-866	2.1	2
361	Discrete-time zeroing neural network for solving time-varying Sylvester-transpose matrix inequation via exp-aided conversion. <i>Neurocomputing</i> , <b>2020</b> , 386, 126-135	5.4	5
360	Discrete-Time Advanced Zeroing Neurodynamic Algorithm Applied to Future Equality-Constrained Nonlinear Optimization With Various Noises. <i>IEEE Transactions on Cybernetics</i> , <b>2020</b> , PP,	10.2	2

359	New Discrete-Time Models of Zeroing Neural Network Solving Systems of Time-Variant Linear and Nonlinear Inequalities. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2020</b> , 50, 565-576	7.3	20
358	Continuous and discrete zeroing neural dynamics handling future unknown-transpose matrix inequality as well as scalar inequality of linear class. <i>Numerical Algorithms</i> , <b>2020</b> , 83, 529-547	2.1	5
357	Continuous and Discrete Zeroing Neural Network for Different-Level Dynamic Linear System With Robot Manipulator Control. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2020</b> , 50, 4633-4642	7.3	18
356	General 7-Instant DCZNN Model Solving Future Different-Level System of Nonlinear Inequality and Linear Equation. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2020</b> , 31, 3204-3214	10.3	15
355	Solving Future Different-Layer Nonlinear and Linear Equation System Using New Eight-Node DZNN Model. <i>IEEE Transactions on Industrial Informatics</i> , <b>2020</b> , 16, 2280-2289	11.9	12
354	Discrete-time formulation, control, solution and verification of pendulum systems with zeroing neural dynamics. <i>Theoretical Computer Science</i> , <b>2020</b> , 817, 33-43	1.1	2
353	From mathematical equivalence such as Ma equivalence to generalized Zhang equivalency including gradient equivalency. <i>Theoretical Computer Science</i> , <b>2020</b> , 817, 44-54	1.1	3
352	Different-level algorithms for control of robotic systems. <i>Applied Mathematical Modelling</i> , <b>2020</b> , 77, 922-933	7.3	5
351	Presentation, Derivation and Numerical Experiments of a Group of Extrapolation Formulas <b>2019</b> ,		1
350	. <i>IEEE Computational Intelligence Magazine</i> , <b>2019</b> , 14, 52-60	5.6	11
349	Robust Zhang Neural Network for Tracking Control of Parallel Robot Manipulators With Unknown Parameters <b>2019</b> ,		3
348	New Models for Future Problems Solving by Using ZND Method, Correction Strategy and Extrapolation Formulas. <i>IEEE Access</i> , <b>2019</b> , 7, 84536-84544	3.5	5
347	Step-width theoretics and numerics of four-point general DTZN model for future minimization using Jury stability criterion. <i>Neurocomputing</i> , <b>2019</b> , 357, 231-239	5.4	9
346	Stepsize Interval Confirmation of General Four-Step DTZN Algorithm Illustrated With Future Quadratic Programming and Tracking Control of Manipulators. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2019</b> , 1-9	7.3	11
345	New Discrete-Solution Model for Solving Future Different-Level Linear Inequality and Equality With Robot Manipulator Control. <i>IEEE Transactions on Industrial Informatics</i> , <b>2019</b> , 15, 1975-1984	11.9	18
344	General Square-Pattern Discretization Formulas via Second-Order Derivative Elimination for Zeroing Neural Network Illustrated by Future Optimization. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2019</b> , 30, 891-901	10.3	22
343	A 5-instant finite difference formula to find discrete time-varying generalized matrix inverses, matrix inverses, and scalar reciprocals. <i>Numerical Algorithms</i> , <b>2019</b> , 81, 609-629	2.1	7
342	Time-varying matrix eigenanalyses via Zhang Neural Networks and look-ahead finite difference equations. <i>Linear Algebra and Its Applications</i> , <b>2019</b> , 580, 417-435	0.9	9

341	Discrete-Time ZND Models Solving ALRMPC via Eight-Instant General and Other Formulas of ZeaD. <i>IEEE Access</i> , <b>2019</b> , 7, 125909-125918	3.5	5
340	Solving future equation systems using integral-type error function and using twice ZNN formula with disturbances suppressed. <i>Journal of the Franklin Institute</i> , <b>2019</b> , 356, 2130-2152	4	12
339	Five-instant type discrete-time ZND solving discrete time-varying linear system, division and quadratic programming. <i>Neurocomputing</i> , <b>2019</b> , 331, 323-335	5.4	7
338	New 5-Step Discrete-Time Zeroing Neuronet for Time-Dependent Matrix Square Root Finding <b>2019</b> ,		1
337	Stepsize Range and Optimal Value for Taylor-Zhang Discretization Formula Applied to Zeroing Neurodynamics Illustrated via Future Equality-Constrained Quadratic Programming. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2019</b> , 30, 959-966	10.3	23
336	General four-step discrete-time zeroing and derivative dynamics applied to time-varying nonlinear optimization. <i>Journal of Computational and Applied Mathematics</i> , <b>2019</b> , 347, 314-329	2.4	39
335	Zhang Neural Dynamics Approximated by Backward Difference Rules in Form of Time-Delay Differential Equation. <i>Neural Processing Letters</i> , <b>2019</b> , 50, 1735-1753	2.4	1
334	New five-step DTZD algorithm for future nonlinear minimization with quartic steady-state error pattern. <i>Numerical Algorithms</i> , <b>2019</b> , 81, 1043-1065	2.1	8
333	Stepsize domain confirmation and optimum of ZeaD formula for future optimization. <i>Numerical Algorithms</i> , <b>2019</b> , 81, 561-574	2.1	10
332	Two New Discrete-Time Neurodynamic Algorithms Applied to Online Future Matrix Inversion With Nonsingular or Sometimes-Singular Coefficient. <i>IEEE Transactions on Cybernetics</i> , <b>2019</b> , 49, 2032-2045	10.2	22
331	Proposing and Validation of a New Four-Point Finite-Difference Formula With Manipulator Application. <i>IEEE Transactions on Industrial Informatics</i> , <b>2018</b> , 14, 1323-1333	11.9	24
330	Robust Zeroing Neural-Dynamics and Its Time-Varying Disturbances Suppression Model Applied to Mobile Robot Manipulators. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2018</b> , 29, 4385-4397	10.3	74
329	Discrete time-variant nonlinear optimization and system solving via integral-type error function and twice ZND formula with noises suppressed. <i>Soft Computing</i> , <b>2018</b> , 22, 7129-7141	3.5	11
328	Analysis, Verification and Comparison on Feedback-Aided MA Equivalence and Zhang Equivalency of Minimum-Kinetic-Energy Type for Kinematic Control of Redundant Robot Manipulators. <i>Asian Journal of Control</i> , <b>2018</b> , 20, 2154-2170	1.7	7
327	New Discrete-Time ZNN Models for Least-Squares Solution of Dynamic Linear Equation System With Time-Varying Rank-Deficient Coefficient. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2018</b> , 29, 5767-5776	10.3	33
326	New Discretization-Formula-Based Zeroing Dynamics for Real-Time Tracking Control of Serial and Parallel Manipulators. <i>IEEE Transactions on Industrial Informatics</i> , <b>2018</b> , 14, 3416-3425	11.9	40
325	Optimal zeroing dynamics with applications to control of serial and parallel manipulators. <i>Optimal Control Applications and Methods</i> , <b>2018</b> , 39, 1393-1406	1.7	2
324	Neural network-based discrete-time Z-type model of high accuracy in noisy environments for solving dynamic system of linear equations. <i>Neural Computing and Applications</i> , <b>2018</b> , 29, 1217-1232	4.8	36

323	Z-type neural-dynamics for time-varying nonlinear optimization under a linear equality constraint with robot application. <i>Journal of Computational and Applied Mathematics</i> , <b>2018</b> , 327, 155-166	2.4	36
322	Zeroing neural-dynamics approach and its robust and rapid solution for parallel robot manipulators against superposition of multiple disturbances. <i>Neurocomputing</i> , <b>2018</b> , 275, 845-858	5.4	48
321	Output Tracking of Time-Varying Linear and Nonlinear Systems Using ZN and ZG Controllers with Pseudo Division-by-Zero Phenomena Shown <b>2018</b> ,		2
320	Three-step general discrete-time Zhang neural network design and application to time-variant matrix inversion. <i>Neurocomputing</i> , <b>2018</b> , 306, 108-118	5.4	19
319	Jerk-level cyclic motion planning and control for constrained redundant robot manipulators using Zhang dynamics: Theoretics <b>2018</b> ,		3
318	ZD Method Based Nonlinear and Robust Control of Agitator Tank. <i>Asian Journal of Control</i> , <b>2018</b> , 20, 1464-1479	1.7	5
317	. <i>IEEE Transactions on Industrial Informatics</i> , <b>2018</b> , 14, 3044-3053	11.9	106
316	Singularity-conquering Zhang-gradient controller groups for tracking control of Brockett integrator <b>2018</b> ,		1
315	Zhang Matrix Found as an Exception with its Time-Dependent Pseudoinverse Unsolvable by Getz-Masden Dynamic System <b>2018</b> ,		1
314	Any ZeaD Formula of Six Instants Having No Quartic or Higher Precision with Proof <b>2018</b> ,		1
313	Computer Simulations and Comparisons of Jerk-Level Cyclic Motion Planning and Control for CRRM <b>2018</b> ,		1
312	Using full-traversal addition-subtraction frequency (ASF) method to predict possible el nino events in 2019,2020 and so forth <b>2018</b> ,		2
311	Euler-precision general-form of Zhang et al discretization (ZeaD) formulas, derivation, and numerical experiments <b>2018</b> ,		4
310	Discrete Model Solving Time-Dependent Matrix Eigen Problem with ZeaD (Zhang et al Discretization) Formula Using 7 Points <b>2018</b> ,		1
309	Division by zero, pseudo-division by zero, Zhang dynamics method and Zhang-gradient method about control singularity conquering. <i>International Journal of Systems Science</i> , <b>2017</b> , 48, 1-12	2.3	61
308	From Davidenko Method to Zhang Dynamics for Nonlinear Equation Systems Solving. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2017</b> , 47, 2817-2830	7.3	29
307	. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2017</b> , 14, 1337-1350	4.9	55
306	Noise-Tolerant ZNN Models for Solving Time-Varying Zero-Finding Problems: A Control-Theoretic Approach. <i>IEEE Transactions on Automatic Control</i> , <b>2017</b> , 62, 992-997	5.9	116

305	Zeroing dynamics based motion control scheme for parallel manipulators. <i>Electronics Letters</i> , <b>2017</b> , 53, 74-75	1.1	4
304	ZD, ZG and IOL Controllers and Comparisons for Nonlinear System Output Tracking with DBZ Problem Conquered in Different Relative-Degree Cases. <i>Asian Journal of Control</i> , <b>2017</b> , 19, 1482-1495	1.7	7
303	Signum-function array activated ZNN with easier circuit implementation and finite-time convergence for linear systems solving. <i>Information Processing Letters</i> , <b>2017</b> , 124, 30-34	0.8	19
302	ZFD formula 4I g SFD_Y applied to future minimization. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2017</b> , 381, 1677-1681	2.3	18
301	Control of pendulum tracking (including swinging up) of IPC system using zeroing-gradient method. <i>Nonlinear Dynamics</i> , <b>2017</b> , 89, 1-25	5	123
300	Numerical prediction of short-term snowy weather in Guangzhou via addition-subtraction frequency (ASF) algorithm with unequally half traversal <b>2017</b> ,		2
299	Zhang dynamics tracking control of varactor system with stability analysis <b>2017</b> ,		2
298	Numerical extrapolation of important date sequence by addition-subtraction frequency (ASF) algorithm <b>2017</b> ,		4
297	<b>2017</b> ,		1
296	Jerk-level synchronous repetitive motion scheme with gradient-type and zeroing-type dynamics algorithms applied to dual-arm redundant robot system control. <i>International Journal of Systems Science</i> , <b>2017</b> , 48, 2713-2727	2.3	10
295	New ZFD (Zhang finite difference) formula 4I g SFD_L for time-varying reciprocal and inverse computation <b>2017</b> ,		2
294	Three-state space reformulation and control of MD-included one-link robot system using direct-derivative and zhang-dynamics methods <b>2017</b> ,		2
293	Simpler ZD-achieving controller for chaotic systems synchronization with parameter perturbation, model uncertainty and external disturbance as compared with other controllers. <i>Optik</i> , <b>2017</b> , 131, 364-373	2.5	10
292	Kinematic Control of Redundant Manipulators Using Neural Networks. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2017</b> , 28, 2243-2254	10.3	166
291	Predicting potential valley-point dates of stock market numerically based on ASF algorithm <b>2017</b> ,		1
290	Potential Mw8.1-or-above Japan earthquake before 2020 numerically predicted via ASF method <b>2017</b> ,		2
289	From Euclid division of constant integers to Zhang division of time-varying variables <b>2017</b> ,		1
288	Type-ZOG1 controller using gradient descent of state vector for output tracking of time-invariant linear system <b>2017</b> ,		1



287	Acceleration-level fault-tolerant scheme for redundant manipulator motion planning and control: Theoretics <b>2017</b> ,		2
286	USA future war prediction using ASF method with 3 inputs and full traversal: No new war till 2030 or 2034 though 2021, 2023, 2027 and 2032 risky? <b>2017</b> ,		6
285	Proposing, QP-unification and verification of DLSM based MKE-IIWT scheme for redundant robot manipulators <b>2017</b> ,		3
284	Discrete time-varying four fundamental operations implemented by Euler forward difference <b>2017</b> ,		2
283	Possible M7.0-or-above chile earthquake numerically projected via full-traversal addition-subtraction frequency method <b>2017</b> ,		3
282	Symbolic Solutions to Division by Zero Problem via Gradient Neurodynamics. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 745-750	0.9	1
281	Ten-Quarter Projection for Spanish Central Government Debt via WASD Neuronet. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 893-902	0.9	
280	Dynamic design, numerical solution and effective verification of acceleration-level obstacle-avoidance scheme for robot manipulators. <i>International Journal of Systems Science</i> , <b>2016</b> , 47, 932-945	2.3	31
279	Sine neural network (SNN) with double-stage weights and structure determination (DS-WASD). <i>Soft Computing</i> , <b>2016</b> , 20, 211-221	3.5	5
278	Minimum jerk norm scheme applied to obstacle avoidance of redundant robot arm with jerk bounded and feedback control. <i>IET Control Theory and Applications</i> , <b>2016</b> , 10, 1896-1903	2.5	29
277	Modified ZNN for Time-Varying Quadratic Programming With Inherent Tolerance to Noises and Its Application to Kinematic Redundancy Resolution of Robot Manipulators. <i>IEEE Transactions on Industrial Electronics</i> , <b>2016</b> , 63, 6978-6988	8.9	128
276	Cooperative-manipulation scheme of routh-hurwitz type for simultaneous repetitive motion planning of two-manipulator robotic systems <b>2016</b> ,		1
275	<b>2016</b> ,		1
274	A potential saturation value of world population is near? <b>2016</b> ,		1
273	Enhanced discrete-time Zhang neural network for time-variant matrix inversion in the presence of bias noises. <i>Neurocomputing</i> , <b>2016</b> , 207, 220-230	5.4	51
272	Revisit and compare Ma equivalence and Zhang equivalence of minimum velocity norm (MVN) type. <i>Advanced Robotics</i> , <b>2016</b> , 30, 416-430	1.7	11
271	Taylor O(h <sup>2</sup> ) Discretization of ZNN Models for Dynamic Equality-Constrained Quadratic Programming With Application to Manipulators. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2016</b> , 27, 225-37	10.3	69
270	Tracking control of modified Lorenz nonlinear system using ZG neural dynamics with additive input or mixed inputs. <i>Neurocomputing</i> , <b>2016</b> , 196, 82-94	5.4	30

269	CP-activated WASD neuronet approach to Asian population prediction with abundant experimental verification. <i>Neurocomputing</i> , <b>2016</b> , 198, 48-57	5.4	13
268	Continuous and discrete Zhang dynamics for real-time varying nonlinear optimization. <i>Numerical Algorithms</i> , <b>2016</b> , 73, 115-140	2.1	66
267	Integration-Enhanced Zhang Neural Network for Real-Time-Varying Matrix Inversion in the Presence of Various Kinds of Noises. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2016</b> , 27, 2615-2627	10.3	138
266	Challenging simulation practice (failure and success) on implicit tracking control of double-integrator system via Zhang-gradient method. <i>Mathematics and Computers in Simulation</i> , <b>2016</b> , 120, 104-119	3.3	8
265	GD-aided IOL (input-output linearisation) controller for handling affine-form nonlinear system with loose condition on relative degree. <i>International Journal of Control</i> , <b>2016</b> , 89, 757-769	1.5	13
264	ZD controller for synchronization of Lu chaotic systems with one input <b>2016</b> ,		3
263	Complex ZNN and GNN models for time-varying complex quadratic programming subject to equality constraints <b>2016</b> ,		4
262	Complete framework of jerk-level inverse-free solutions to inverse kinematics of redundant robot manipulators <b>2016</b> ,		3
261	Jerk-level solutions to manipulator inverse kinematics with mathematical equivalence of operations discovered <b>2016</b> ,		1
260	The second-order ZD, GD and hybrid systems solving nonlinear equations compared with other dynamics <b>2016</b> ,		4
259	Sigmoid function aided Zhang dynamics control for output tracking of time-varying linear system with bounded input <b>2016</b> ,		3
258	UK population forecast using twice-pruning Chebyshev-Polynomial WASD neuronet <b>2016</b> ,		1
257	Inverse-free solution to inverse kinematics of two-wheeled mobile robot system using gradient dynamics method <b>2016</b> ,		1
256	Z-type control of populations for Lotka-Volterra model with exponential convergence. <i>Mathematical Biosciences</i> , <b>2016</b> , 272, 15-23	3.9	23
255	QP-based refined manipulability-maximizing scheme for coordinated motion planning and control of physically constrained wheeled mobile redundant manipulators. <i>Nonlinear Dynamics</i> , <b>2016</b> , 85, 245-261	5	41
254	Combining WASP and ASF algorithms to forecast a Japan earthquake with Mj 7.2 or above <b>2016</b> ,		7
253	G2-type SRMPC scheme for synchronous manipulation of two redundant robot arms. <i>IEEE Transactions on Cybernetics</i> , <b>2015</b> , 45, 153-64	10.2	87
252	Common nature of learning between BP-type and Hopfield-type neural networks. <i>Neurocomputing</i> , <b>2015</b> , 167, 578-586	5.4	22

251	Physical-limits-constrained minimum velocity norm coordinating scheme for wheeled mobile redundant manipulators. <i>Robotica</i> , <b>2015</b> , 33, 1325-1350	2.1	19
250	Infinitely many Zhang functions resulting in various ZNN models for time-varying matrix inversion with link to Drazin inverse. <i>Information Processing Letters</i> , <b>2015</b> , 115, 703-706	0.8	29
249	Singularity-conquering tracking control of a class of chaotic systems using Zhang-gradient dynamics. <i>IET Control Theory and Applications</i> , <b>2015</b> , 9, 871-881	2.5	37
248	ZNN for solving online time-varying linear matrix-vector inequality via equality conversion. <i>Applied Mathematics and Computation</i> , <b>2015</b> , 259, 327-338	2.7	30
247	Neural-Dynamic-Method-Based Dual-Arm CMG Scheme With Time-Varying Constraints Applied to Humanoid Robots. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2015</b> , 26, 3251-62	10.3	96
246	ZG tracking control of 3-input 3-output nonlinear system with GD used additionally once more <b>2015</b> ,		2
245	Tracking and stabilizing Chen chaotic system via one multiplicative coefficient as Zhang-gradient control input <b>2015</b> ,		2
244	Time-Varying Complex Matrix Inverse <b>2015</b> , 163-172		
243	Discrete-Time Zhang Neural Network for Online Time-Varying Nonlinear Optimization With Application to Manipulator Motion Generation. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2015</b> , 26, 1525-31	10.3	93
242	Taylor-type 1-step-ahead numerical differentiation rule for first-order derivative approximation and ZNN discretization. <i>Journal of Computational and Applied Mathematics</i> , <b>2015</b> , 273, 29-40	2.4	65
241	Complete theory for E47 and 94LVI algorithms solving inequality-and-bound constrained quadratic program efficiently <b>2015</b> ,		8
240	New DTZNN model for future minimization with cube steady-state error pattern using Taylor finite-difference formula <b>2015</b> ,		5
239	Zhang-Gradient Controllers for Tracking Control of Multiple-Integrator Systems. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , <b>2015</b> , 137,	1.6	4
238	ZG control for nonlinear system 2-output tracking with GD used additionally once more <b>2015</b> ,		2
237	Inverse-free solution of Z1G1 type to acceleration-level inverse kinematics of redundant robot manipulators <b>2015</b> ,		2
236	QP-based smoother self-motion planning and control of redundant manipulators using ZD variant with effective verifications <b>2015</b> ,		2
235	Simply and effectively proved square characteristics of discrete-time zd solving systems of time-varying nonlinear equations <b>2015</b> ,		5
234	Warming substantiated by multiple sine functions decomposition of multiple cities' temperature data <b>2015</b> ,		3

233	ZG control for 2-output tracking of 3-input nonlinear system with GD used additionally twice more <b>2015,</b>		2
232	Zhang Functions and Various Models <b>2015,</b>		38
231	Northern American population data recovery from 1500AD to 1950AD as well as prediction using WASD neuronet with 513-year data <b>2015,</b>		1
230	Fast, finite, accurate and optimal WASD neuronet versus slow, infinite, inaccurate and rough BP neuronet illustrated via russia population prediction <b>2015,</b>		2
229	New formula of 4-instant g-square finite difference (4IgSFD) applied to time-variant matrix inversion <b>2015,</b>		3
228	Use of WASD neuronet in projecting the population of Oceania based on 1000-year historical data <b>2015,</b>		1
227	Near future prediction of European population through Chebyshev-activation WASD neuronet <b>2015,</b>		3
226	ZG stabilization and tracking control for bilinear system of u-integration type <b>2015,</b>		6
225	Chebyshev-polynomial neuronet, WASD algorithm and world population prediction from past 10000-year rough data <b>2015,</b>		4
224	On exponential convergence of nonlinear gradient dynamics system with application to square root finding. <i>Nonlinear Dynamics</i> , <b>2015</b> , 79, 983-1003	5	27
223	Application to Fixed-Base Robot RMP <b>2015</b> , 195-213		
222	Time-Varying Square Root <b>2015</b> , 33-45		
221	Time-Varying Matrix Right Pseudoinverse <b>2015</b> , 121-128		1
220	Time-Varying Complex Reciprocal <b>2015</b> , 151-161		
219	Inverse-Free Scheme of G1 Type to Velocity-Level Inverse Kinematics of Redundant Robot Manipulators. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 99-108		0.9
218	Application to Mobile Robot RMP <b>2015</b> , 215-236		
217	Time-Varying Matrix Inverse <b>2015</b> , 91-104		
216	Time-Varying Reciprocal <b>2015</b> , 3-16		

215	Time-Varying Matrix Square Root <b>2015</b> , 129-148		1
214	Time-Varying Complex Matrix Generalized Inverse <b>2015</b> , 173-192		
213	Time-Varying Matrix Left Pseudoinverse <b>2015</b> , 105-119		
212	Time-Varying Inverse Square Root <b>2015</b> , 17-31		
211	Time-Varying Linear Matrix-Vector Inequality <b>2015</b> , 75-88		
210	Analysis and Verification of Repetitive Motion Planning and Feedback Control for Omnidirectional Mobile Manipulator Robotic Systems. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , <b>2014</b> , 75, 393-411	2.9	13
209	Zhang neural network for online solution of time-varying linear matrix inequality aided with an equality conversion. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2014</b> , 25, 370-82	10.3	53
208	Performance analysis of LVI-based PDNN applied to real-time solution of time-varying quadratic programming <b>2014</b> ,		1
207	Simulation and Experimental Verification of Weighted Velocity and Acceleration Minimization for Robotic Redundancy Resolution. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2014</b> , 11, 1203-1217 <sup>26</sup>	4.9	26
206	A new performance index for the repetitive motion of mobile manipulators. <i>IEEE Transactions on Cybernetics</i> , <b>2014</b> , 44, 280-92	10.2	68
205	Case study of Zhang matrix inverse for different ZFs leading to different nets <b>2014</b> ,		4
204	Li-function activated ZNN with finite-time convergence applied to redundant-manipulator kinematic control via time-varying Jacobian matrix pseudoinversion. <i>Applied Soft Computing Journal</i> , <b>2014</b> , 24, 158-168	7.5	70
203	Singularity-conquering ZG controllers of z2g1 type for tracking control of the IPC system. <i>International Journal of Control</i> , <b>2014</b> , 87, 1729-1746	1.5	33
202	Cross-validation based weights and structure determination of Chebyshev-polynomial neural networks for pattern classification. <i>Pattern Recognition</i> , <b>2014</b> , 47, 3414-3428	7.7	44
201	Discrete-time Zhang neural network of O(B) pattern for time-varying matrix pseudoinversion with application to manipulator motion generation. <i>Neurocomputing</i> , <b>2014</b> , 142, 165-173	5.4	73
200	ZE in iZ1eD1 manner for MKE redundancy resolution at velocity and acceleration levels <b>2014</b> ,		1
199	Theory and Substantiation of z0g1 Controller Conquering Singularity Problem of Output Tracking for a Class of Nonlinear System <b>2014</b> ,		1
198	Cart Velocity Tracking of General IPC Model Using ZG Control Compared with Cart Path Tracking <b>2014</b> ,		1

197	. <i>IEEE Transactions on Industrial Electronics</i> , <b>2014</b> , 61, 6903-6914	8.9	110
196	<b>2014</b> ,		6
195	Inverse-free D1G1 solution to acceleration-level inverse kinematics of redundant robot manipulators <b>2014</b> ,		1
194	ZG controller groups for two-output tracking of two-input Brockett integrator <b>2014</b> ,		3
193	Neural Dynamics and Newton Raphson Iteration for Nonlinear Optimization. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2014</b> , 9,	1.4	21
192	Two numerical algorithms and numerical experiments for efficiently solving inequality-and-bound constrained QP <b>2014</b> ,		3
191	Restoration of missing time-series data via multiple sine functions decomposition with Guangzhou-temperature application <b>2014</b> ,		4
190	Power-Activated WASD Neuronet Based Russian Population Estimation, Correction, and Prediction <b>2014</b> ,		2
189	Solving the Problem of Runge Phenomenon by Pseudoinverse Cubic Spline <b>2014</b> ,		4
188	Acceleration-Level Minimum Kinetic Energy (MKE) Scheme Derived via Ma Equivalence for Motion Planning of Redundant Robot Manipulators <b>2014</b> ,		5
187	ZG tracking control of Lu system with multiple inputs and with division-by-zero problem solved <b>2014</b> ,		6
186	Different Complex ZFs Leading to Different Complex ZNN Models for Time-Varying Complex Generalized Inverse Matrices. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2014</b> , 25, 1621-1631	1.93	85
185	Weights and structure determination of multiple-input feed-forward neural network activated by Chebyshev polynomials of Class 2 via cross-validation. <i>Neural Computing and Applications</i> , <b>2014</b> , 25, 1761-1770	1.8	12
184	WASP neuronet activated by bipolar-sigmoid functions and applied to glomerular-filtration-rate estimation <b>2014</b> ,		2
183	ZG trajectory generation of Van der Pol oscillator in affine-control form with division-by-zero problem handled <b>2014</b> ,		6
182	A weighted damping coefficient based manipulability maximizing scheme for coordinated motion planning of wheeled mobile manipulators <b>2014</b> ,		5
181	From different ZFs to different ZNN models accelerated via Li activation functions to finite-time convergence for time-varying matrix pseudoinversion. <i>Neurocomputing</i> , <b>2014</b> , 133, 512-522	5.4	53
180	From Different Zhang Functions to Various ZNN Models Accelerated to Finite-Time Convergence for Time-Varying Linear Matrix Equation. <i>Neural Processing Letters</i> , <b>2014</b> , 39, 309-326	2.4	37

179	Solving time-varying inverse kinematics problem of wheeled mobile manipulators using Zhang neural network with exponential convergence. <i>Nonlinear Dynamics</i> , <b>2014</b> , 76, 1543-1559	5	45
178	Different-Level Simultaneous Minimization with Aid of Ma Equivalence for Robotic Redundancy Resolution. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 431-438	0.9	1
177	Z-Type Model for Real-Time Solution of Complex ZLE. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 286-293	0.9	1
176	A time-varying coefficient-based manipulability-maximizing scheme for motion control of redundant robots subject to varying joint-velocity limits. <i>Optimal Control Applications and Methods</i> , <b>2013</b> , 34, 202-215	1.7	9
175	Discrete-time ZD, GD and NI for solving nonlinear time-varying equations. <i>Numerical Algorithms</i> , <b>2013</b> , 64, 721-740	2.1	35
174	Simultaneous repetitive motion planning of two redundant robot arms for acceleration-level cooperative manipulation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2013</b> , 377, 1979-1983	2.3	7
173	Different-Level Simultaneous Minimization of Joint-Velocity and Joint-Torque for Redundant Robot Manipulators. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , <b>2013</b> , 72, 301-323	2.9	30
172	Solving for time-varying and static cube roots in real and complex domains via discrete-time ZD models. <i>Neural Computing and Applications</i> , <b>2013</b> , 23, 255-268	4.8	4
171	Z-type and G-type models for time-varying inverse square root (TVISR) solving. <i>Soft Computing</i> , <b>2013</b> , 17, 2021-2032	3.5	8
170	Solving time-varying nonlinear inequalities using continuous and discrete-time Zhang dynamics. <i>International Journal of Computer Mathematics</i> , <b>2013</b> , 90, 1114-1127	1.2	14
169	<b>2013</b> ,		1
168	Z-type and G-type ZISR (Zhang inverse square root) solving <b>2013</b> ,		2
167	Twice-Pruning Aided WASD Neuronet of Bernoulli-Polynomial Type with Extension to Robust Classification <b>2013</b> ,		4
166	Controller design of nonlinear system for fully trackable and partially trackable paths by combining ZD and GD <b>2013</b> ,		7
165	Different complex ZFs leading to different complex ZNN models for time-varying complex matrix inversion <b>2013</b> ,		3
164	Growing-type WASD for power-activation neuronet to model and forecast monthly time series <b>2013</b> ,		6
163	ZG Control for Ship Course Tracking with Singularity Considered and Solved <b>2013</b> ,		13
162	Acceleration-Level Repetitive Motion Planning and Its Experimental Verification on a Six-Link Planar Robot Manipulator. <i>IEEE Transactions on Control Systems Technology</i> , <b>2013</b> , 21, 906-914	4.8	59

161	Acceleration-level repetitive motion planning of redundant planar robots solved by a simplified LVI-based primal-dual neural network. <i>Robotics and Computer-Integrated Manufacturing</i> , <b>2013</b> , 29, 328-343	9.2	19
160	Superior robustness of power-sum activation functions in Zhang neural networks for time-varying quadratic programs perturbed with large implementation errors. <i>Neural Computing and Applications</i> , <b>2013</b> , 22, 175-185	4.8	20
159	Encoder based online motion planning and feedback control of redundant manipulators. <i>Control Engineering Practice</i> , <b>2013</b> , 21, 1277-1289	3.9	7
158	Different Zhang functions resulting in different ZNN models demonstrated via time-varying linear matrix-vector inequalities solving. <i>Neurocomputing</i> , <b>2013</b> , 121, 140-149	5.4	28
157	Different Zhang functions leading to different ZNN models illustrated via time-varying matrix square roots finding. <i>Expert Systems With Applications</i> , <b>2013</b> , 40, 4393-4403	7.8	16
156	Using GD to conquer the singularity problem of conventional controller for output tracking of nonlinear system of a class. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2013</b> , 377, 1611-1614	2.3	16
155	The link and comparison between velocity-level and acceleration-level repetitive motion planning schemes verified via PA10 robot arm. <i>Mechanism and Machine Theory</i> , <b>2013</b> , 69, 245-262	4	4
154	A new type of recurrent neural networks for real-time solution of Lyapunov equation with time-varying coefficient matrices. <i>Mathematics and Computers in Simulation</i> , <b>2013</b> , 92, 40-52	3.3	8
153	Link Between and Comparison and Combination of Zhang Neural Network and Quasi-Newton BFGS Method for Time-Varying Quadratic Minimization. <i>IEEE Transactions on Cybernetics</i> , <b>2013</b> , 43, 490-503	10.2	48
152	Presentation, error analysis and numerical experiments on a group of 1-step-ahead numerical differentiation formulas. <i>Journal of Computational and Applied Mathematics</i> , <b>2013</b> , 239, 406-414	2.4	20
151	Zhang equivalence of different-level robotic schemes: An MVN case study based on PA10 robot manipulator <b>2013</b> ,		3
150	Design and experimentation of acceleration-level drift-free scheme aided by two recurrent neural networks. <i>IET Control Theory and Applications</i> , <b>2013</b> , 7, 25-42	2.5	75
149	Different Zhang functions leading to different ZD models illustrated via time-varying square roots finding <b>2013</b> ,		1
148	Different Zhang functions leading to various ZNN models illustrated via solving the time-varying overdetermined system of linear equations <b>2013</b> ,		6
147	Common nature of learning between back-propagation and Hopfield-type neural networks for generalized matrix inversion with simplified models. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2013</b> , 24, 579-92	10.3	47
146	Variable Joint-Velocity Limits of Redundant Robot Manipulators Handled by Quadratic Programming. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2013</b> , 18, 674-686	5.5	67
145	ZG controllers for output tracking of nonlinear mass-spring-damper mechanical system with division-by-zero problem solved <b>2013</b> ,		4
144	Minimum movement scheme with wheels and joints coordinated simultaneously for mobile redundant manipulator <b>2013</b> ,		3



143	Solving for time-varying inverse square root by different ZD models based on different Zhang functions <b>2013</b> ,		1
142	ZG Controllers of z2g0 and z2g1 Types for Tracking Control of IPC Mathematical Model. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2013</b> , 46, 689-694		1
141	Repetitive Motion Planning and Control of Redundant Robot Manipulators <b>2013</b> ,		72
140	Different ZFs Leading to Various ZNN Models Illustrated via Online Solution of Time-Varying Underdetermined Systems of Linear Equations with Robotic Application. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 481-488	0.9	15
139	Dual Neural Network <b>2013</b> , 33-56		
138	Proofs of Repetitive Motion Performance Index <b>2013</b> , 27-30		
137	Examples of Planar Multilink Manipulators <b>2013</b> , 109-128		
136	Robotic RMP Schemes and QP Formulations <b>2013</b> , 17-25		1
135	Zhang-Gradient Controllers of Z0G0, Z1G0 and Z1G1 Types for Output Tracking of Time-Varying Linear Systems with Control-Singularity Conquered Finally. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 533-540	0.9	8
134	Physical Robot Manipulator Experiments <b>2013</b> , 149-166		
133	Robustness Analysis of Z-type ZLE Solving. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 62-69	0.9	0
132	PA10 Examples <b>2013</b> , 137-148		
131	Fault-tolerant motion planning and control of redundant manipulator. <i>Control Engineering Practice</i> , <b>2012</b> , 20, 282-292	3.9	25
130	Different-level two-norm and infinity-norm minimization to remedy joint-torque instability/divergence for redundant robot manipulators. <i>Robotics and Autonomous Systems</i> , <b>2012</b> , 60, 874-888	3.5	17
129	Effective parameter range for equivalence of velocity-level and acceleration-level redundancy resolution schemes. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2012</b> , 376, 1736-1739	2.3	10
128	Different-Level Redundancy-Resolution and Its Equivalent Relationship Analysis for Robot Manipulators Using Gradient-Descent and Zhang 's Neural-Dynamic Methods. <i>IEEE Transactions on Industrial Electronics</i> , <b>2012</b> , 59, 3146-3155	8.9	65
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126	Different Zhang functions leading to different Zhang-dynamics models illustrated via time-varying reciprocal solving. <i>Applied Mathematical Modelling</i> , <b>2012</b> , 36, 4502-4511	4.5	31

125	Zhang neural network, Getz Marsden dynamic system, and discrete-time algorithms for time-varying matrix inversion with application to robots' kinematic control. <i>Neurocomputing</i> , <b>2012</b> , 97, 22-32	5.4	60
124	Pruning-included weights and structure determination of 2-input neuronet using Chebyshev polynomials of Class 1 <b>2012</b> ,		7
123	Zhang-gradient tracking controllers of Z1G0 and Z1G1 types for time-invariant linear systems <b>2012</b> ,		2
122	Two New Types of Zhang Neural Networks Solving Systems of Time-Varying Nonlinear Inequalities. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2012</b> , 59, 2363-2373	3.9	55
121	A New Inequality-Based Obstacle-Avoidance MVN Scheme and Its Application to Redundant Robot Manipulators. <i>IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews</i> , <b>2012</b> , 42, 1326-1340		82
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117	A new variant of the Zhang neural network for solving online time-varying linear inequalities. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2012</b> , 468, 2255-2271	7.4	14
116	Three nonlinearly-activated discrete-Time ZNN models for time-varying matrix inversion <b>2012</b> ,		2
115	Broyden-Method Aided Discrete ZNN Solving the Systems of Time-Varying Nonlinear Equations <b>2012</b> ,		3
114	Time-varying complex reciprocals solved by ZD via different complex Zhang functions <b>2012</b> ,		4
113	Convergence and stability results of Zhang neural network solving systems of time-varying nonlinear equations <b>2012</b> ,		9
112	On hyperbolic sine activation functions used in ZNN for time-varying matrix square roots finding <b>2012</b> ,		1
111	Feedback-Type MWVN Scheme and Its Acceleration-Level Equivalent Scheme Proved by Zhang Dynamics <b>2012</b> ,		3
110	Zhang fractals yielded via solving nonlinear equations by discrete-time complex-valued ZD <b>2012</b> ,		1
109	Discrete-time ZNN algorithms for time-varying linear matrix-vector inequality solving <b>2012</b> ,		1
108	Weights and structure determination (WASD) of multiple-input hermit orthogonal polynomials neural network (MIHOPNN) <b>2012</b> ,		3

107	Growing-type weights and structure determination of 2-input Legendre orthogonal polynomial neuronet <b>2012</b> ,		5
106	QP-based SMP scheme for robots with pseudoinverse method compared and singularities discussed <b>2012</b> ,		1
105	Manipulability-maximizing self-motion planning and control of redundant manipulators with experimental validation <b>2012</b> ,		9
104	State adjustment of redundant robot manipulator based on quadratic programming. <i>Robotica</i> , <b>2012</b> , 30, 477-489	2.1	14
103	Design and implementation of a zero-initial-velocity self-motion scheme on a six-DOF planar robot manipulator. <i>Industrial Robot</i> , <b>2012</b> , 39, 401-411	1.4	4
102	Zhang Dynamics and Gradient Dynamics with Tracking-Control Application <b>2012</b> ,		13
101	Superior performance of using hyperbolic sine activation functions in ZNN illustrated via time-varying matrix square roots finding. <i>Computer Science and Information Systems</i> , <b>2012</b> , 9, 1603-1625	0.8	15
100	Time-Varying Moore-Penrose Inverse Solving Shows Different Zhang Functions Leading to Different ZNN Models. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 98-105	0.9	10
99	Zhang Fractals Yielded via Solving Time-Varying Nonlinear Complex Equations by Discrete-Time Complex-Valued ZD. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 596-603	0.9	0
98	Different-Level Schemes Equivalence for Self-Motion Planning of Robot Manipulators. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 9-16	0.9	1
97	Discrete-Time ZNN Algorithms for Time-Varying Quadratic Programming Subject to Time-Varying Equality Constraint. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 47-54	0.9	0
96	Zhang neural network versus gradient neural network for solving time-varying linear inequalities. <i>IEEE Transactions on Neural Networks</i> , <b>2011</b> , 22, 1676-84		81
95	Discrete-time Zhang neural network and numerical algorithm for time-varying linear equations solving <b>2011</b> ,		5
94	Performance analysis of gradient neural network exploited for online time-varying quadratic minimization and equality-constrained quadratic programming. <i>Neurocomputing</i> , <b>2011</b> , 74, 1710-1719	5.4	39
93	Zhang neural network versus gradient-based neural network for time-varying linear matrix equation solving. <i>Neurocomputing</i> , <b>2011</b> , 74, 3708-3712	5.4	43
92	Continuous and discrete time Zhang dynamics for time-varying 4th root finding. <i>Numerical Algorithms</i> , <b>2011</b> , 57, 35-51	2.1	20
91	Comparison on Zhang neural dynamics and gradient-based neural dynamics for online solution of nonlinear time-varying equation. <i>Neural Computing and Applications</i> , <b>2011</b> , 20, 1-7	4.8	126
90	Zhang neural network solving for time-varying full-rank matrix Moore-Penrose inverse. <i>Computing (Vienna/New York)</i> , <b>2011</b> , 92, 97-121	2.2	82

89	Complex-valued Zhang neural network for online complex-valued time-varying matrix inversion. <i>Applied Mathematics and Computation</i> , <b>2011</b> , 217, 10066-10073	2.7	50
88	Minimum-effort redundancy resolution of robot manipulators unified by quadratic programming <b>2011</b> ,		2
87	<b>2011</b> ,		3
86	Remedy scheme and theoretical analysis of joint-angle drift phenomenon for redundant robot manipulators. <i>Robotics and Computer-Integrated Manufacturing</i> , <b>2011</b> , 27, 860-869	9.2	19
85	On the LVI-based numerical method (E47 algorithm) for solving quadratic programming problems <b>2011</b> ,		10
84	Unification and comparison on bi-criteria velocity, acceleration and torque minimization illustrated via three-link planar robot arm <b>2011</b> ,		2
83	Comparison on Continuous-Time Zhang Dynamics and Newton-Raphson Iteration for Online Solution of Nonlinear Equations. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 393-402	0.9	6
82	Time-Varying Quadratic Programming by Zhang Neural Network Equipped with a Time-Varying Design Parameter $\bar{\lambda}(t)$ . <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 101-108	0.9	1
81	Robustness analysis of the Zhang neural network for online time-varying quadratic optimization. <i>Journal of Physics A: Mathematical and Theoretical</i> , <b>2010</b> , 43, 245202	2	29
80	Convergence analysis of Zhang neural networks solving time-varying linear equations but without using time-derivative information <b>2010</b> ,		4
79	More than Newton iterations generalized from Zhang neural network for constant matrix inversion aided with line-search algorithm <b>2010</b> ,		5
78	Quadratic-programming based self-motion planning with no target-configuration assigned for planar robot arms <b>2010</b> ,		2
77	Bi-criteria velocity minimization of robot manipulators using LVI-based primal-dual neural network and illustrated via PUMA560 robot arm. <i>Robotica</i> , <b>2010</b> , 28, 525-537	2.1	12
76	Improved Zhang neural network model and its solution of time-varying generalized linear matrix equations. <i>Expert Systems With Applications</i> , <b>2010</b> , 37, 7213-7218	7.8	30
75	Support vector machine optimal control for mobile wheeled inverted pendulums with unmodelled dynamics. <i>Neurocomputing</i> , <b>2010</b> , 73, 2773-2782	5.4	33
74	Bi-criteria optimal control of redundant robot manipulators using LVI-based primal-dual neural network. <i>Optimal Control Applications and Methods</i> , <b>2010</b> , 31, 213-229	1.7	25
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71	Self-motion planning of functionally redundant PUMA560 manipulator via quadratic-program formulation and solution <b>2009</b> ,		2
70	Bi-criteria torque minimization of redundant robot arms with schemes, models and methods compared <b>2009</b> ,		6
69	Linear programming versus quadratic programming in robots' repetitive redundancy resolution: A chattering phenomenon investigation <b>2009</b> ,		5
68	MATLAB Simulink modeling and simulation of LVI-based primaldual neural network for solving linear and quadratic programs. <i>Neurocomputing</i> , <b>2009</b> , 72, 1679-1687	5.4	28
67	Repetitive motion of redundant robots planned by three kinds of recurrent neural networks and illustrated with a four-link planar manipulator's straight-line example. <i>Robotics and Autonomous Systems</i> , <b>2009</b> , 57, 645-651	3.5	61
66	Zhang neural network for online solution of time-varying convex quadratic program subject to time-varying linear-equality constraints. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2009</b> , 373, 1639-1643	2.3	114
65	Equivalence of velocity-level and acceleration-level redundancy-resolution of manipulators. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2009</b> , 373, 3450-3453	2.3	19
64	Infinity-norm acceleration minimization of robotic redundant manipulators using the LVI-based primaldual neural network. <i>Robotics and Computer-Integrated Manufacturing</i> , <b>2009</b> , 25, 358-365	9.2	25
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61	Solution of nonlinear equations by continuous- and discrete-time Zhang dynamics and more importantly their links to Newton iteration <b>2009</b> ,		11
60	<b>2009</b> ,		12
59	Performance Analysis of Gradient Neural Network Exploited for Online Time-Varying Matrix Inversion. <i>IEEE Transactions on Automatic Control</i> , <b>2009</b> , 54, 1940-1945	5.9	117
58	Euler Neural Network with Its Weight-Direct-Determination and Structure-Automatic-Determination Algorithms <b>2009</b> ,		5
57	From Zhang Neural Network to Newton Iteration for Matrix Inversion. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2009</b> , 56, 1405-1415	3.9	128
56	Joint-angle-drift remedy of three-link planar robot arm performing different types of end-effector trajectories <b>2009</b> ,		1
55	Equivalent relationship between velocity- and acceleration-level redundancy-resolution schemes exemplified via multi-link planar robot arms <b>2009</b> ,		2
54	Bernoulli Neural Network with Weights Directly Determined and with the Number of Hidden- Layer Neurons Automatically Determined. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 36-45	0.9	11

53	Modeling and Verification of Zhang Neural Networks for Online Solution of Time-Varying Quadratic Minimization and Programming. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 101-110	0.9	0
52	Cyclic motion generation of multi-link planar robot performing square end-effector trajectory analyzed via gradient-descent and Zhang et al's neural-dynamic methods <b>2008</b> ,		3
51	MATLAB Simulink Modeling and Simulation of Zhang Neural Network for Online Time-Varying Matrix Inversion <b>2008</b> ,		3
50	MATLAB Simulink modeling and simulation of Zhang neural networks for online time-varying sylvester equation solving <b>2008</b> ,		1
49	MATLAB Simulink Modeling of Zhang Neural Network Solving for Time-Varying Pseudoinverse in Comparison with Gradient Neural Network <b>2008</b> ,		5
48	Zhang neural network without using time-derivative information for constant and time-varying matrix inversion <b>2008</b> ,		13
47	Self-motion planning of redundant robot manipulators based on quadratic program and shown via PA10 example <b>2008</b> ,		5
46	A weights-directly-determined simple neural network for nonlinear system identification <b>2008</b> ,		14
45	Simulation and Comparison of Zhang Neural Network and Gradient Neural Network Solving for Time-Varying Matrix Square Roots <b>2008</b> ,		15
44	On the Variable Step-Size of Discrete-Time Zhang Neural Network and Newton Iteration for Constant Matrix Inversion <b>2008</b> ,		6
43	Cyclic Motion Planning of Redundant Robot Arms: Simple Extension of Performance Index May Not Work <b>2008</b> ,		2
42	Bi-criteria Velocity Minimization of Robot Manipulators Using a Linear Variational Inequalities-Based Primal-Dual Neural Network and PUMA560 Example. <i>Advanced Robotics</i> , <b>2008</b> , 22, 1479-1496	1.7	21
41	Comparison on Zhang neural network and gradient neural network for time-varying linear matrix equation $AXB = C$ solving <b>2008</b> ,		2
40	Common Nature of Learning Exemplified by BP and Hopfield Neural Networks for Solving Online a System of Linear Equations <b>2008</b> ,		9
39	The link between newton iteration for matrix inversion and Zhang neural network (ZNN) <b>2008</b> ,		1
38	A dual neural network applied to drift-free resolution of five-link planar robot arm <b>2008</b> ,		12
37	Repetitive motion planning of PA10 robot arm subject to joint physical limits and using LVI-based primal-dual neural network. <i>Mechatronics</i> , <b>2008</b> , 18, 475-485	3	61
36	Log-det approximation based on uniformly distributed seeds and its application to Gaussian process regression. <i>Journal of Computational and Applied Mathematics</i> , <b>2008</b> , 220, 198-214	2.4	10

35	Growing Algorithm of Laguerre Orthogonal Basis Neural Network with Weights Directly Determined. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 60-67	0.9	5
34	MATLAB Simulation and Comparison of Zhang Neural Network and Gradient Neural Network for Online Solution of Linear Time-Varying Matrix Equation $AXB \dot{X} = 0$ . <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 68-75	0.9	6
33	Zhang Neural Network Versus Gradient Neural Network for Online Time-Varying Quadratic Function Minimization. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 807-814	0.9	7
32	MATLAB Simulation and Comparison of Zhang Neural Network and Gradient Neural Network for Time-Varying Lyapunov Equation Solving. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 117-127	0.9	2
31	Comparison on Gradient-Based Neural Dynamics and Zhang Neural Dynamics for Online Solution of Nonlinear Equations. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 269-279	0.9	16
30	$O(N^2)$ -Operation Approximation of Covariance Matrix Inverse in Gaussian Process Regression Based on Quasi-Newton BFGS Method. <i>Communications in Statistics Part B: Simulation and Computation</i> , <b>2007</b> , 36, 367-380	0.6	52
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28	On the Simplified LVI-based Primal-Dual Neural Network for Solving LP and QP Problems <b>2007</b> ,		18
27	Minimum-Energy Redundancy Resolution of Robot Manipulators Unified by Quadratic Programming and its Online Solution <b>2007</b> ,		22
26	Repetitive Motion Planning of Kinematically Redundant Manipulators Using LVI-based Primal-Dual Neural Network <b>2007</b> ,		5
25	MATLAB Simulation of Gradient-Based Neural Network for Online Matrix Inversion. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 98-109	0.9	6
24	Zhang Neural Network for Online Solution of Time-Varying Sylvester Equation <b>2007</b> , 276-285		7
23	Inverse-free Dual Neural Networks for Online Solution of Strictly Convex Quadratic Programming <b>2007</b> ,		1
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21	A set of nonlinear equations and inequalities arising in robotics and its online solution via a primal neural network. <i>Neurocomputing</i> , <b>2006</b> , 70, 513-524	5.4	62
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18	Design and analysis of a general recurrent neural network model for time-varying matrix inversion. <i>IEEE Transactions on Neural Networks</i> , <b>2005</b> , 16, 1477-90		322

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16	Obstacle avoidance for kinematically redundant manipulators using a dual neural network. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , <b>2004</b> , 34, 752-9		132
15	A unified quadratic-programming-based dynamical system approach to joint torque optimization of physically constrained redundant manipulators. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , <b>2004</b> , 34, 2126-32		200
14	RECURRENT NEURAL NETWORKS FOR REAL-TIME COMPUTATION OF INVERSE KINEMATICS OF REDUNDANT MANIPULATORS. <i>Advances in Fuzzy Systems</i> , <b>2004</b> , 299-319		12
13	A dual neural network for redundancy resolution of kinematically redundant manipulators subject to joint limits and joint velocity limits. <i>IEEE Transactions on Neural Networks</i> , <b>2003</b> , 14, 658-67		175
12	A dual neural network for convex quadratic programming subject to linear equality and inequality constraints. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2002</b> , 298, 271-278	2.3	112
11	A recurrent neural network for solving Sylvester equation with time-varying coefficients. <i>IEEE Transactions on Neural Networks</i> , <b>2002</b> , 13, 1053-63		314
10	A dual neural network for bi-criteria kinematic control of redundant manipulators. <i>IEEE Transactions on Automation Science and Engineering</i> , <b>2002</b> , 18, 923-931		98
9	Global exponential stability of recurrent neural networks for synthesizing linear feedback control systems via pole assignment. <i>IEEE Transactions on Neural Networks</i> , <b>2002</b> , 13, 633-44		81
8	A dual neural network for constrained joint torque optimization of kinematically redundant manipulators. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , <b>2002</b> , 32, 654-62		70
7	Recurrent Neural Networks for Nonlinear Output Regulation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2001</b> , 34, 597-602		1
6	Recurrent neural networks for nonlinear output regulation. <i>Automatica</i> , <b>2001</b> , 37, 1161-1173	5.7	60
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