

CITATION REPORT

List of articles citing

Inverse Kinematic Solutions With Singularity Robustness for Robot Manipulator Control

DOI: 10.1115/1.3143764

Journal of Dynamic Systems, Measurement and
Control, Transactions of the ASME, 1986, 108, 163-171.

Source: <https://exaly.com/paper-pdf/18653567/citation-report.pdf>

Version: 2024-04-28

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

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

#	Paper	IF	Citations
828	A Fast Damped Least-squares Solution To Manipulator Inverse Kinematics And Singularities Prevention.		3
827	Adjoint Jacobian closed-loop kinematic control of robots.		7
826	Task-Priority Based Redundancy Control of Robot Manipulators. 1987 , 6, 3-15		622
825	Optimal Redundancy Control of Robot Manipulators. 1987 , 6, 32-42		177
824	Numerical filtering for the operation of robotic manipulators through kinematically singular configurations. 1988 , 5, 527-552		154
823	Introduction of redundant arms for manipulation in space.		18
822	.		5
821	.		5
820	On the Inverse Kinematics of Redundant Manipulators. 1988 , 7, 3-21		127
819	.		3
818	.		60
817	The Augmented Task Space Approach for Redundant Manipulator Control. 1988 , 21, 125-129		
816	. 1989 , 5, 409-417		35
815	Methods of Analysis of Constrained Multibody Systems. 1989 , 17, 135-143		11
814	. 1989 ,		3
813	Redundancy resolution through local optimization: A review. 1989 , 6, 769-798		187
812	A comparison of analysis methods of redundant multibody systems. 1989 , 16, 175-182		4

811	The Singular Value Decomposition: Computation and Applications to Robotics. 1989 , 8, 63-79	124
810	Preferred gimbal angles for single gimbal control moment gyros. 1989 ,	1
809	Automatic generation of forward and inverse kinematics for a reconfigurable modular manipulator system. 1990 , 7, 599-619	29
808	Inverse kinematics of calibrated robots. 1990 , 7, 675-687	1
807	Improved configuration control for redundant robots. 1990 , 7, 897-928	106
806	Singularity of robotic kinematics: A differential motion approach. 1990 , 25, 439-448	8
805	Kinematic control of redundant robot manipulators: A tutorial. 1990 , 3, 201-212	393
804	Sensory Control in Singular Configurations Application to Visual Servoing.	9
803	Using Momentum Conservation to Control Kinematically Redundant Manipulators.	
802	. 1990 , 6, 113-117	2
801	. 1990 ,	17
800	.	22
799	Steering law design for redundant single-gimbal control moment gyroscopes. 1990 , 13, 1083-1089	126
798	Preferred gimbal angles for single gimbal control moment gyros. 1990 , 13, 1090-1095	113
797	. 1990 ,	5
796	A Fast Procedure for Manipulator Inverse Kinematics Evaluation and Pseudoinverse Robustness.	1
795	Closed-Loop Inverse Kinematics Schemes for Constrained Redundant Manipulators with Task Space Augmentation and Task Priority Strategy. 1991 , 10, 410-425	197
794	Manipulator control in singular configurations Motion in degenerate directions. 1991 , 296-306	3

793	.	3
792	. 1991 , 7, 597-606	110
791	.	17
790	.	2
789	. 1991 ,	7
788	Control of robotic systems through singularities. 1991 , 285-295	8
787	.	16
786	. 1991 ,	290
785	Resolving Redundancy Through a Weighted Damped Least-Squares Solution. 1991 , 24, 99-104	
784	A direct algorithm for continuous path control of manipulators. 1991 , 8, 97-101	4
783	Die theoretischen grundlagen zur behandlung algebraischer singularitäten der kinematischen koordinatenumkehr in der robotertechnik. 1991 , 26, 315-322	2
782	.	16
781	. 1991 ,	41
780	.	
779	. 1991 ,	1
778	Approach to control moment gyroscope steering using feedback linearization. 1991 , 14, 96-106	23
777	Controllability issues of robots near singular configurations. 1991 , 307-314	0
776	.	1

775	Weighted damped least-squares in kinematic control of robotic manipulators. 1992 , 7, 201-218	7
774	.	4
773	A Robust Local Approach For The Obstacle Avoidance Of Redundant Robot Manipulators.	3
772	.	4
771	.	3 ¹
770	.	
769	A noninverting algorithm for path tracking of two cooperating robot arms and its parallel implementation. 1992 , 5, 105-127	5
768	Procedure for manipulator inverse kinematics computation and proper pseudoinverse perturbation. 1992 , 9, 681-702	2
767	. 1992 , 22, 1116-1124	5
766	An approach for ensuring manipulator tip accuracy near singularities. 1993 , 28, 641-649	9
765	A fast procedure for manipulator inverse kinematics computation and singularities prevention. 1993 , 10, 45-72	13
764	Estimate of the two smallest singular values of the Jacobian Matrix: Application to damped least-squares inverse kinematics. 1993 , 10, 991-1008	3 ⁰
763	On inverting singular kinematics and geodesic trajectory generation for robot manipulators. 1993 , 8, 325-359	20
762	Singularity-robust decoupled control of dual-elbow manipulators. 1993 , 8, 225-243	1
761	.	3
760	Dynamic control approach for motion coordination of multiple wheeled mobile robots transporting a single object.	27
759	. 1993 , 9, 854-857	4
758	.	6

757	.	24
756	Motion planning and control of nonredundant manipulators at singularities.	12
755	.	6
754	.	5
753	. 1993 , 9, 125-139	50
752	.	27
751	Symbolic Singular Value Decomposition for a PUMA Robot and Its Application to a Robot Operation Near Singularities. 1993 , 12, 460-472	21
750	Combined Analytical- Pseudoinverse Inverse Kinematic Solution for Simple Redundant Manipulators and Singularity Avoidance. 1993 , 12, 188-196	17
749	. 1993 , 9, 93-96	2
748	.	20
747	Coordination of Motion in a Spacecraft/ Manipulator System. 1993 , 12, 366-379	25
746	Dynamic Control of Redundant Manipulators with Joint Flexibility. 1993 , 26, 507-510	
745	Robot control in singular configurations [Analysis and experimental results. 1993 , 25-34	2
744	.	4
743	.	11
742	.	3
741	.	3
740	.	1

739	Robotic fault detection and fault tolerance: A survey. 1994 , 46, 139-158	110
738	Operating robot manipulators through kinematic singularities using a continuously sliding mode control. 1994 , 11, 411-423	1
737	. 1994 , 10, 1-10	68
736	. 1994 , 10, 65-71	113
735	. 1994 , 2, 123-134	179
734	. 1994 , 10, 405-414	14
733	. 1994 , 41, 866-875	19
732	Experimental results on controlling a 6-DOF robot manipulator in the neighborhood of kinematic singularities. 1994 , 1-13	1
731	Control considerations on minimum joint torque motion. 1994 , 40-49	3
730	Comparison of local and global solution in optimisation of joint torques of n-R planar manipulator. 1994 , 27, 447-452	
729	A fast method of solving inverse kinematics of redundant manipulators. 1994 , 27, 369-374	0
728	A three-point velocity approach to robot motion control. 1994 , 27, 363-368	
727	Overview of damped least-squares methods for inverse kinematics of robot manipulators. 1995 , 14, 43-68	65
726	Extended impedance control using real and virtual sensors for redundant manipulators. 1995 , 14, 89-103	1
725	A fast approach for the robust trajectory planning of redunant robot manipulators. 1995 , 12, 147-161	24
724	Singularity-consistent path tracking: a null space based approach.	12
723	Coping with joint velocity limits in first-order inverse kinematics algorithms: analysis and real-time implementation. 1995 , 13, 515-519	16
722	Symbolic Singular Value Decomposition for Simple Redundant Manipulators and Its Application to Robot Control. 1995 , 14, 382-398	15

721	Suboptimal command generation for control moment gyroscopes and feedback control of spacecraft. 1995 , 18, 1350-1354	24
720	Redundant motions of non-redundant robots a new approach to singularity treatment.	12
719	Strategies for Increasing the Tracking Region of an Eye-in-Hand System by Singularity and Joint Limit Avoidance. 1995 , 14, 255-269	66
718	Study and resolution of singularities for a 6-DOF PUMA manipulator.	
717	Kinematic control of a seven-joint manipulator with non-spherical wrist.	
716	Analysis and resolution of singularities for a 5-DOF GRYPHON manipulator.	0
715	. 1995 , 11, 448-457	59
714	A recursive singularity-robust Jacobian generalized inverse. 1995 , 11, 887-892	3
713	Singularity-Robust Second-Order Kinematic Control of Robot Manipulators. 1996 , 39-46	1
712	Two approaches to singularity-consistent motion of nonredundant robotic mechanisms.	7
711	Feasible trajectories for a non-redundant robot at a singularity.	4
710	Damped-Rate Resolved-Acceleration Control for Manipulators. 1996 , 29, 349-354	1
709	Error-back-propagation solution to the inverse kinematic problem of redundant manipulators. 1996 , 12, 303-310	12
708	An inverse-free technique for attitude control of spacecraft using CMGs. 1996 , 39, 431-438	18
707	Direct and Inverse Kinematics for Coordinated Motion Tasks of a Two-Manipulator System. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 1996 , 118, 691-697	1.6 49
706	Trajectory generation for two robots cooperating to perform a task.	15
705	A discrete algorithm for fixed-path trajectory generation at kinematic singularities.	2
704	Configuration Control of a Mobile Dexterous Robot: Real-Time Implementation and Experimentation. 1997 , 16, 601-618	13

703 Optimal redundancy resolution for cooperative industrial robots.

702 An extended form of damped pseudoinverse control of kinematically redundant manipulators. 1

701 An Experimental Study of Resolved Acceleration Control of Robots at Singularities: Damped Least-Squares Approach. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1997**, 119, 97-101 1.6 8

700 Kinematic Control of Redundant Manipulators Via the Gradient Projection Method. **1997**, 30, 619-624

699 . 1

698 Removing singularities of resolved motion rate control of mechanisms, including self-motion. **1997**, 13, 741-751 21

697 Repeatable kinematic control of redundant manipulators: implementation issues. 2

696 Teleoperation based on the adjoint Jacobian approach. **1997**, 17, 53-62 22

695 . 2

694 Singularity-consistent inverse kinematics of a 6-DOF manipulator with a non-spherical wrist. 1

693 Singularity-robust task-priority redundancy resolution for real-time kinematic control of robot manipulators. **1997**, 13, 398-410 410

692 Study and resolution of singularities for a 6-DOF PUMA manipulator. **1997**, 27, 332-43 30

691 Second-order kinematic control of robot manipulators with Jacobian damped least-squares inverse: theory and experiments. **1997**, 2, 188-194 55

690 Manipulation at ill-conditioned configurations by a robot hand (employment of local and global dexterities). **1997**, 7, 479-503 0

689 Implementation of damped-rate resolved-acceleration robot control. **1997**, 5, 791-800 3

688 A rapidly deployable manipulator system. **1997**, 21, 289-304 41

687 Approximate solutions to unreachable commands in teleoperation of a robot. **1998**, 14, 219-227 4

686 Comparison of an exact and an approximate method of singularity avoidance in platform type parallel manipulators. **1998**, 33, 965-974 76

685	Singularity-free path planning for the Stewart platform manipulator. 1998 , 33, 711-725	100
684	Desingularization of nonredundant serial manipulator trajectories using Puiseux series. 1998 , 14, 590-600	9
683	Singular inverse kinematic problem for robotic manipulators: a normal form approach. 1998 , 14, 93-104	37
682	Study and resolution of singularities for a 7-DOF redundant manipulator. 1998 , 45, 469-480	31
681	Singularity Consistent Inverse Kinematics by Enhancing the Jacobian Transpose. 1998 , 475-482	7
680	Feasible Trajectories in Task Space from a Singularity for a Nonredundant or Redundant Robot Manipulator. 1998 , 17, 56-69	4
679	Singularity-Consistent Behavior of Telerobots: Theory and Experiments. 1998 , 17, 138-152	16
678	CMG singularity avoidance using VSCMG null motion. 1998 ,	6
677	Task-priority formulations for the kinematic control of highly redundant articulated structures.	83
676	A Predictive Algorithm for Rate Control of Mechanisms Near Singularities. 1998 , 17, 652-666	2
675	Advanced experiments with a teleoperation system based on the SC approach.	5
674	Singularity consistency and the natural motion of robot manipulators.	1
673	Inverse kinematic solutions for parallel robots with singularity robustness.	
672	Haptic feedback of kinematic conditioning for telerobotic applications.	4
671	Chapter 3 Kinematic control of dual-arm systems. 1998 , 79-97	1
670	Feedback Control Law for Variable Speed Control Moment Gyros. 1998 , 46, 307-328	127
669	Real-time motion control in the neighborhood of singularities: a comparative study between the SC and the DLS methods.	4
668	Solving the singularity problem of non-redundant manipulators by constraint optimization.	18

667	Inverse Kinematic Solutions for a Fully Parallel Robot with Singularity Robustness. 1999 , 18, 575-583		7
666	Redundancy resolution and obstacle avoidance for cooperative industrial robots. 1999 , 16, 405-417		12
665	A new inverse kinematics algorithm with path tracking capability under velocity and acceleration constraints.		8
664	Using redundancy to reduce accelerations near kinematic singularities.		2
663	On-line motion retargetting.		4
662	The design of control strategies tolerant to unidentified failures in kinematically redundant manipulators.		1
661	Singularity-consistent teleoperation techniques for redundant free-flying robots. 1999 ,		2
660	Controlling robotic manipulators through singular configurations: An overview. 1999 , 32, 839-842		
659	Kinematic Control of Robots With Joint Constraints. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 1999 , 121, 433-442	1.6	15
658	Kinematic Control of Redundant Manipulators with On-Line End-Effector Path Tracking Capability Under Velocity and Acceleration Constraints. 2000 , 33, 183-188		9
657	Singularity robust steering logic for redundant single-gimbal control moment gyros. 2000 ,		7
656	Online motion retargetting. 2000 , 11, 223-235		62
655	On the execution of the secondary task of redundant manipulators. 2000 , 30, 231-236		4
654	Dynamics filter - concept and implementation of online motion generator for human figures.		23
653	Singular Direction Avoidance Steering for Control-Moment Gyros. 2000 , 23, 648-656		148
652	Singularity Avoidance Using Null Motion and Variable-Speed Control Moment Gyros. 2000 , 23, 11-16		93
651	Task-oriented approaches to the inverse kinematics problem for a reclaimer excavating and transporting raw material. 2000 , 14, 185-204		4
650	.		6

649	Experiments with a parallel robot with singularity-perturbed design.	2
648	Kinematic control of the mass properties of redundant articulated bodies.	3
647	Bordered matrix for singularity robust inverse kinematics: a methodological aspect.	0
646	Singularity-Consistent Parameterization of Robot Motion and Control. 2000 , 19, 159-182	46
645	Minimum time path-tracking control of redundant manipulators.	2
644	On the implementation of velocity control for kinematically redundant manipulators. 2000 , 30, 233-237	20
643	Precision Spacecraft Pointing Using Single-Gimbal Control Moment Gyroscopes with Disturbance. 2000 , 23, 77-85	50
642	Hybrid system design for singularityless task level robot controllers.	4
641	Real-time end-effector path following for robot manipulators subject to velocity, acceleration, and jerk joint limits.	8
640	Analysis and control of redundant parallel manipulators.	25
639	Time optimal control of kinematically redundant manipulators with limit heat characteristics of actuators.	
638	Singularity-Robust Trajectory Generation. 2001 , 20, 38-56	27
637	A simple algorithm for determining of movement duration in task space without violating joint angle constraints.	
636	A numerical SC approach for a teleoperated 7-DOF manipulator.	6
635	Singularity Robust Steering Logic for Redundant Single-Gimbal Control Moment Gyros. 2001 , 24, 865-872	161
634	An approach to torque optimizing control for a redundant manipulator.	
633	Redundancy resolution for robot manipulators-comparison of computational efficiency between the SVDs, the fast similarity factorization and recursive formulation.	
632	Time-optimal control of kinematically redundant manipulators with limit heat characteristics of actuators. 2002 , 16, 735-749	10

631	Study of singularity robust inverse of Jacobian matrix for manipulator.	4
630	Path-constrained trajectory planning of robot arm passing through singularities.	1
629	Singularity robust manipulator control using virtual joints.	3
628	A real-time approach for singularity avoidance in resolved motion rate control of robotic manipulators.	31
627	Synergetic CG choreography through constraining and deconstraining at will.	14
626	The Operational Space Formulation implementation to aircraft canopy polishing using a mobile manipulator.	9
625	Rapid Multitarget Acquisition and Pointing Control of Agile Spacecraft. 2002 , 25, 96-104	130
624	New solution algorithm for singularity control of serial manipulators.	
623	Hierarchical kinematic analysis of robots. 2003 , 38, 497-518	7
622	. 2003 , 11, 109-120	52
621	Human-like motion of a humanoid robot arm based on a closed-form solution of the inverse kinematics problem.	57
620	A new on-line algorithm for inverse kinematics of robot manipulators ensuring path tracking capability under joint limits. 2003 , 19, 162-167	58
619	Natural motion animation through constraining and deconstraining at will. 2003 , 9, 352-360	145
618	Cable-suspended planar parallel robots with redundant cables: controllers with positive cable tensions.	5
617	Dynamics Filter - concept and implementation of online motion Generator for human figures. 2003 , 19, 421-432	125
616	Controlling a marionette with human motion capture data.	17
615	Task space visual servoing of eye-in-hand flexible manipulators.	4
614	Nonlinear Spacecraft Stability And Control. 2003 , 295-378	1

613	Motion analysis of a kinematically redundant seven-DOF manipulator under the singularity-consistent method.	5
612	Algorithmic singularities avoidance in task-priority based controller for redundant manipulators.	9
611	A new method for motion planning of redundant manipulators using singular configurations.	
610	Body deformable motion planning for metamorphic robot.	
609	Feasible Motion Solutions for Serial Manipulators at Singular Configurations. 2003 , 125, 61-69	10
608	Reaching through learned forward model.	2
607	Synthesizing animations of human manipulation tasks. 2004 , 23, 532-539	113
606	CONTROLLING A MOTORIZED MARIONETTE WITH HUMAN MOTION CAPTURE DATA. 2004 , 01, 651-669	9
605	Synthesizing animations of human manipulation tasks. 2004 ,	41
604	An inverse kinematics architecture enforcing an arbitrary number of strict priority levels. 2004 , 20, 402-417	189
603	Motion planning of redundant robots by perturbation method. 2004 , 14, 281-297	27
602	A general singularity avoidance framework for robot manipulators: task reconstruction method. 2004 ,	0
601	Constrained nonlinear control allocation with singularity avoidance using sequential quadratic programming. 2004 , 12, 211-216	206
600	An Experimental Comparison of CMG Steering Control Laws. 2004 ,	14
599	Improving vision-based control using efficient second-order minimization techniques. 2004 ,	142
598	Time Optimal Path-Tracking Control of Kinematically Redundant Manipulators. 2004 , 47, 582-590	12
597	VISUAL CONTROL OF ROBOTIC MANIPULATORS: DESIGNING A SIMPLIFIED STABILIZING CONTROLLER. 2005 , 38, 451-456	
596	A new steering law for redundant control moment gyroscope clusters. 2005 , 9, 626-634	21

595	Computational motor control in humans and robots. 2005 , 15, 675-82	76
594	Kinematic Redundancy in Robot Grasp Synthesis. An Efficient Tree-based Representation.	
593	A FAST AND EFFICIENT MODEL FOR LEARNING TO REACH. 2005 , 02, 391-413	30
592	Sign synthesis from SignWriting notation using MPEG-4, H-Anim parameters and inverse kinematics. 2005 , 4,	
591	Cable suspended planar robots with redundant cables: controllers with positive tensions. 2005 , 21, 457-465	138
590	Modal warping: real-time simulation of large rotational deformation and manipulation. 2005 , 11, 91-101	100
589	Hybrid motion control and planning strategies for visual servoing. 2005 , 52, 1024-1040	72
588	Kinematic Redundancy in Robot Grasp Synthesis. An Efficient Tree-based Representation.	
587	Optimal Steering Laws for Variable Speed Control Moment Gyros. 2005 ,	8
586	Architecture for Low-Power, High-Agility Multibody Control. 2005 ,	1
585	Studies on Magnetic Attitude Control System for the REIMEI Microsatellite. 2006 ,	7
584	Emulating the Motion of a Human Upper Limb: Controlling a Finger-arm Robot by using the Manipulability of its Finger. 2006 ,	5
583	Toward Interactive Reaching in Static Environments for Humanoid Robots. 2006 ,	19
582	Optimal Motion Planning Passing Through Kinematic Singularities for Robot Arms. 2006 ,	1
581	AirEOD. 2006 , 33, 228-235	
580	Control of a Macro-Micro Robot System Using Manipulability of the Micro Robot. 2006 , 49, 897-904	6
579	Multi-fingered robot hand optimal task force distribution. 2006 , 54, 34-51	44
578	Task reconstruction method for real-time singularity avoidance for robotic manipulators. 2006 , 20, 453-481	20

577	Two-time scale visual servoing of eye-in-hand flexible manipulators. 2006 , 22, 818-830	15
576	Controller Fusion Based on the Velocity Vector for Redundant Manipulator. 2006 ,	
575	Singularity avoidance of variable speed control moment gyros by optimization approach. 2007 , 55, 67-84	7
574	Experiments of singularity avoidance steering control laws for redundant single-gimbal control moment gyros. 2007 ,	1
573	Enhancement of Boundary Condition Relaxation Method for 3D Hopping Motion Planning of Biped Robots. 2007 ,	17
572	Randomized statistical path planning. 2007 ,	35
571	Study on Inverse Kinematics and Trajectory Tracking Control of Humanoid Robot Finger with Nonlinearly Coupled Joints. 2007 ,	2
570	Three-Axis Attitude Control Design for On-Orbit Robotics. 2007 ,	4
569	Adaptive Satellite Attitude Control in the Presence of Inertia and CMG Gimbal Friction Uncertainties. 2007 ,	4
568	Survey of Theory and Steering Laws of Single-Gimbal Control Moment Gyros. 2007 , 30, 1331-1340	114
567	A fast and smooth walking pattern generator of biped robot using Jacobian inverse kinematics. 2007 ,	
566	An efficient framework for multiple tasks in human-like robots. 2007 ,	
565	Randomized path planning for redundant manipulators without inverse kinematics. 2007 ,	37
564	The workspace mapping with deficient-DOF space for the PUMA 560 robot and its exoskeleton arm by using orthogonal experiment design method. 2007 , 23, 478-487	25
563	Improving robot arm control for safe and robust haptic cooperation in orthopaedic procedures. 2007 , 3, 316-22	12
562	A method for determining control inputs for prescribed accelerations of the end-effector of a motion-simulator robot. 2007 , 7, 4130005-4130006	
561	Asymptotic reduced-dimensional steering strategies for CMG singularity-free control. 2007 , 21, 436-447	1
560	Neuro-Kinematics Based Dexterous Robotics Hand Force Optimization. 2007 , 50, 181-206	3

559	From bone to plausible bipedal locomotion using inverse kinematics. 2007 , 40, 1048-57	17
558	Determination of the maximal singularity-free zones in the six-dimensional workspace of the general Gough-Stewart platform. 2007 , 42, 497-511	83
557	Singularly perturbed feedback linearization with linear attitude deviation dynamics realization. 2008 , 53, 321-343	20
556	Autonomous Path Planning and Experiment Study of Free-floating Space Robot for Target Capturing. 2008 , 51, 303-331	29
555	Reaching with multi-referential dynamical systems. 2008 , 25, 71-83	31
554	Full-body performance animation with Sequential Inverse Kinematics. 2008 , 70, 87-104	28
553	Kinematically Redundant Manipulators. 2008 , 245-268	100
552	Power-Optimal Steering of a Space Robotic System Driven by Control-Moment Gyroscopes. 2008 ,	8
551	Space Vehicle Dynamics and Control, Second Edition. 2008 ,	201
550	Adaptive satellite attitude control in the presence of inertia and CMG gimbal friction uncertainties. 2008 , 56, 121-134	25
549	Improved Damped Least Squares Solution with Joint Limits, Joint Weights and Comfortable Criteria for Controlling Human-like Figures. 2008 ,	9
548	Dynamical System Modulation for Robot Learning via Kinesthetic Demonstrations. 2008 , 24, 1463-1467	154
547	Design and on-orbit evaluation of magnetic attitude control system for the REIMEI microsatellite. 2008 ,	4
546	Adaptive neural network satellite attitude control in the presence of inertia and CMG actuator uncertainties. 2008 ,	14
545	Inverse Kinematics without matrix inversion. 2008 ,	23
544	Whole body humanoid control from human motion descriptors. 2008 ,	47
543	ONLINE LEARNING OF THE BODY SCHEMA. 2008 , 05, 161-181	58
542	Human-Like Motion Based on a Geometrical Inverse Kinematics and Energetic Optimization. 2008 ,	3

541	Operational Space Control: A Theoretical and Empirical Comparison. 2008 , 27, 737-757	265
540	Robot multiple contact control. 2008 , 26, 667-677	34
539	A goal oriented just-in-time visual servoing for ball catching robot arm. 2008 ,	12
538	. 2009 ,	18
537	A tentative to reach a visual singular configuration using Halley's method.. 2009 ,	1
536	Natural self motion of a robotic limb with single degree-of-redundancy. 2009 ,	1
535	Continuity of Varying-Feature-Set Control Laws. 2009 , 54, 2493-2505	65
534	. 2009 ,	14
533	ONLINE TRANSFER OF HUMAN MOTION TO HUMANOIDS. 2009 , 06, 265-289	42
532	Performance analysis of FIK and DLS inverse kinematics using six degree of freedom manipulator. 2009 ,	3
531	Simplified Singularity Avoidance Using Variable-Speed Control Moment Gyroscope Null Motion. 2009 , 32, 1938-1943	19
530	Trajectory tracking for a serial robot manipulator passing through singular configurations based on the adaptive kinematics Jacobian method. 2009 , 223, 393-415	4
529	An on-line task modification method for singularity avoidance of robot manipulators. 2009 , 27, 539-546	11
528	A biomimetic, force-field based computational model for motion planning and bimanual coordination in humanoid robots. 2009 , 27, 291-307	30
527	Singularity robust algorithm in serial manipulators. 2009 , 25, 122-134	40
526	Integration of humanoid robots in collaborative working environment: a case study on motion generation. 2009 , 2, 153-160	5
525	Robot-assisted catheter manipulation for intracardiac navigation. 2009 , 4, 307-15	36
524	Motion constraint. 2009 , 25, 509-518	17

523	Singularity avoidance of control moment gyros by one-step ahead singularity index. 2009 , 64, 935-945	25
522	Redundant Reaction Wheel Torque Distribution Yielding Instantaneous L2 Power-Optimal Spacecraft Attitude Control. 2009 , 32, 1269-1276	26
521	Spacecraft attitude control by combination of various torquers. 2009 , 40, 995-1008	4
520	Analytical Mechanics of Space Systems, Second Edition. 2009 ,	45
519	Whole-body task planning for a humanoid robot: a way to integrate collision avoidance. 2009 ,	26
518	Gimbal angle restricted control moment gyroscope clusters. 2009 ,	2
517	Optimization in Choosing Gimbal Axis Orientations of a CMG Attitude Control System. 2009 ,	6
516	Towards Real-Time Aircraft Simulation with the MPI Motion Simulator. 2009 ,	2
515	. 2009 ,	2
514	Servo-constraint generalized inverse dynamics for robot manipulator control design. 2009 ,	0
513	. 2009 , 25, 670-685	155
512	Prioritizing linear equality and inequality systems: Application to local motion planning for redundant robots. 2009 ,	48
511	Singularity Avoidance of Control Moment Gyros by Predicted Singularity Robustness: Ground Experiment. 2009 , 17, 884-891	18
510	Boundary Condition Relaxation Method for Stepwise Pedipulation Planning of Biped Robots. 2009 , 25, 658-669	48
509	An Inverse-Kinematics Table-Based Solution of a Humanoid Robot Finger With Nonlinearly Coupled Joints. 2009 , 14, 273-281	16
508	Optimal Motion Planning for Free-Floating Space Robots Based on Null Space Approach. 2009 ,	2
507	Performance Prediction Network for Serial Manipulators Inverse Kinematics Solution Passing Through Singular Configurations. 2010 , 7, 36	2
506	Admittance Control of Multi-Finger-Arm Robot with Manipulability Control of Fingers under Arm Compensatory Movement(Mechanical Systems). 2010 , 76, 655-664	2

505	Tidying and Cleaning Rooms using a Daily Assistive Robot - An Integrated System for Doing Chores in the Real World -. 2010 , 1,	2
504	Artificial neural network-based kinematics Jacobian solution for serial manipulator passing through singular configurations. 2010 , 41, 359-367	55
503	An autonomous mobile manipulator for assembly tasks. 2010 , 28, 131-149	91
502	Singularity avoidance of CMGs by virtual actuators. 2010 , 8, 891-895	4
501	Musculoskeletal-see-through mirror: computational modeling and algorithm for whole-body muscle activity visualization in real time. 2010 , 103, 310-7	37
500	Singularity robustness of the 3RPS parallel manipulator by using the damped-rate resolved-acceleration control. 2010 , 37, 5134-5144	8
499	Hybrid motion planning of a planar robot for a tracking problem with singularity. 2010 ,	1
498	System integration of a daily assistive robot and its application to tidying and cleaning rooms. 2010 ,	13
497	A full-body motion control method for a humanoid robot based on on-line estimation of the operational force of an object with an unknown weight. 2010 ,	10
496	Adaptive Reaction Control for Space Robotic Applications with Dynamic Model Uncertainty. 2010 , 24, 1099-1126	32
495	REACTIVE SELF COLLISION AVOIDANCE WITH DYNAMIC TASK PRIORITIZATION FOR HUMANOID ROBOTS. 2010 , 07, 31-54	8
494	Hybrid Steering Logic for Single-Gimbal Control Moment Gyroscopes. 2010 , 33, 1202-1212	56
493	Integrated motor control, planning, grasping and high-level reasoning in a blocks world using probabilistic inference. 2010 ,	22
492	Identification of standard inertial parameters for large-DOF robots considering physical consistency. 2010 ,	11
491	A new approach to avoid singularities of 6-DOF industrial robot. 2010 ,	1
490	Adaptive Task-Space Tracking Control of Robots Without Task-Space- and Joint-Space-Velocity Measurements. 2010 , 26, 733-742	39
489	Fast resolution of hierarchized inverse kinematics with inequality constraints. 2010 ,	58
488	Simultaneous local motion planning and control for cooperative redundant arms. 2010 ,	2

487	Advances in Robot Kinematics: Motion in Man and Machine. 2010,	3
486	Humanoid robot task recognition from movement analysis. 2010,	2
485	Manipulation of documented objects by a walking humanoid robot. 2010,	14
484	Singularity-robust modular inverse kinematics for robotic gesture imitation. 2010,	4
483	Recognition and manipulation integration for a daily assistive robot working on kitchen environments. 2010,	17
482	Research on Optimization Algorithm for Spatial Position Control of Robotic Visual Servo System. 2010,	
481	Motion capture with constrained inverse kinematics for real-time hand tracking. 2010,	18
480	Algebraic-elimination based solution of inverse kinematics for a humanoid robot finger. 2011,	3
479	Full-body motion control integrated with Force Error Detection for wheelchair support. 2011,	4
478	Generation of dynamic motion for anthropomorphic systems under prioritized equality and inequality constraints. 2011,	25
477	Optimization and control of cyclic biped locomotion on a rolling ball. 2011,	1
476	Robotic arm control inspired by human muscle tension effect under the gravity. 2011,	6
475	Time parametrization of prioritized inverse kinematics based on terminal attractors. 2011,	4
474	Singularity-robust task-space tracking control of robot. 2011,	9
473	Adaptive and Intelligent Systems. 2011,	1
472	Kinematic Control of Redundant Manipulators: Generalizing the Task-Priority Framework to Inequality Task. 2011, 27, 785-792	241
471	Solvability-Unconcerned Inverse Kinematics by the Levenberg-Marquardt Method. 2011, 27, 984-991	103
470	Admittance Control of a Multi-Finger Arm Based on Manipulability of Fingers. 2011, 8, 38	1

469	Performance Analysis of Numerical Integration Methods in the Trajectory Tracking Application of Redundant Robot Manipulators. 2011 , 8, 63	4
468	Fault Tolerant Control of an Over Actuated UAV. 2011 ,	
467	Steering Law of Control Moment Gyros using Optimization of Initial Gimbal Angles for Satellite Attitude Control. 2011 , 5, 30-41	6
466	Direct control of simulated nonhuman characters. 2011 , 31, 56-65	7
465	FABRIK: A fast, iterative solver for the Inverse Kinematics problem. 2011 , 73, 243-260	150
464	Contour Tracking of a Redundant Robot Using Integral Variable Structure Control with Output Feedback. 2011 , 62, 241-270	3
463	Human motion database with a binary tree and node transition graphs. 2011 , 30, 87-98	15
462	A finite state machine based on topology coordinates for wrestling games. 2011 , 22, 435-443	15
461	Tool path smoothing of a redundant machine: Application to Automated Fiber Placement. 2011 , 43, 122-132	50
460	Practical approaches to handle the singularities of a wrist-partitioned space manipulator. 2011 , 68, 269-300	19
459	A fractional approach for the motion planning of redundant and hyper-redundant manipulators. 2011 , 91, 562-570	13
458	Generalized dynamic inversion for multiaxial nonlinear flight control. 2011 ,	0
457	. 2011 ,	11
456	Steering law for control moment gyroscopes based on H ∞ theory. 2011 ,	1
455	. 2011 ,	8
454	Singularity Elimination of Parallel Mechanism by Redundant Actuators. 2011 , 204-210, 1540-1543	3
453	Nonlinear Generalized Dynamic Inversion Aircraft Control. 2011 ,	2
452	Multi-priority control in redundant robotic systems. 2011 ,	7

451	Stretched knee walking with novel inverse kinematics for humanoid robots. 2011,	7
450	The Motion Grammar for physical human-robot games. 2011,	9
449	Inverse kinematics based on high-order moments of feature points and their Jacobian matrices. 2011,	2
448	EFFICIENT INVERSE KINEMATICS COMPUTATION BASED ON REACHABILITY ANALYSIS. 2012, 09, 1250035	23
447	Inertia-Free Spacecraft Attitude Control with Control Moment Gyroscope Actuation. 2012,	5
446	. 2012,	2
445	Fast inverse kinematics algorithm for large DOF system with decomposed gradient computation based on recursive formulation of equilibrium. 2012,	12
444	On continuous null space projections for torque-based, hierarchical, multi-objective manipulation. 2012,	23
443	Linguistic transfer of human assembly tasks to robots. 2012,	16
442	MODULAR IK: A ROBUST INVERSE KINEMATIC ALGORITHM FOR GESTURE IMITATION IN AN UPPER-BODY HUMANOID ROBOT. 2012, 09, 1250010	4
441	Real-time control architecture of a novel Single-Port lapaRoscopy bimaNual roboT (SPRINT). 2012,	11
440	Implementation of a human model for head stabilization on a humanoid platform. 2012,	6
439	A robotic implementation of a bio-inspired head motion stabilization model on a humanoid platform. 2012,	4
438	Aircraft Multi-Constrained Generalized Dynamic Inversion Control. 2012, 45, 151-156	
437	Force control of redundant industrial robots with an approach for singularity avoidance using extended task space formulation (ETSF). 2012, 45, 659-663	
436	A Prediction and Motion-Planning Scheme for Visually Guided Robotic Capturing of Free-Floating Tumbling Objects With Uncertain Dynamics. 2012, 28, 634-649	114
435	Fuzzy Sliding Mode Control of Robotic Manipulators With Kinematic and Dynamic Uncertainties. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2012, 134,	1.6 16
434	Home-Assistant Robot for an Aging Society. 2012, 100, 2429-2441	83

433	. 2012 , 28, 1260-1277	51
432	Integration of Reactive, Torque-Based Self-Collision Avoidance Into a Task Hierarchy. 2012 , 28, 1278-1293	56
431	Large-amplitude base-motion compensation of a serial robot using an inertial measurement unit. 2012 ,	1
430	. 2012 ,	2
429	Interaction mesh based motion adaptation for biped humanoid robots. 2012 ,	12
428	Remote palpation to localize tumors in robot-assisted minimally invasive approach. 2012 ,	4
427	Controlling the planar motion of a heavy object by pushing with a humanoid robot using dual-arm force control. 2012 ,	22
426	Support Vector Regression based inverse kinematic modeling for a 7-DOF redundant robot arm. 2012 ,	3
425	Recursive field estimation and tracking for autonomous manipulation. 2012 , 30, 743-753	1
424	Generating optimal trajectory of humanoid arm that minimizes torque variation using differential dynamic programming. 2012 ,	1
423	Multiple task-space robot control: Sense locally, act globally. 2012 ,	2
422	Development of dynamic model-based controller for upper limb exoskeleton robot. 2012 ,	2
421	Priority oriented adaptive control of kinematically redundant manipulators. 2012 ,	7
420	Nonlinear generalised dynamic inversion for aircraft manoeuvring control. 2012 , 85, 437-450	32
419	Incremental Development of Multiple Tool Models for Robotic Reaching Through Autonomous Exploration. 2012 , 3,	9
418	Closed-form inverse kinematics for interventional C-arm X-ray imaging with six degrees of freedom: modeling and application. 2012 , 31, 1086-99	21
417	Prediction from expert demonstrations for safe tele-surgery. 2013 , 10, 487-497	4
416	Robotic surface assembly via contact state transitions. 2013 ,	7

415	Dynamic movement by admittance control of a multi-finger-arm robot with manipulability control of fingers. 2013,	1
414	Regularized Jacobian for the differential inverse positioning problem of serial revolute joint manipulators. 2013,	2
413	Open and closed-loop task space trajectory control of redundant robots using learned models. 2013,	4
412	. 2013,	
411	Real-time marker prediction and CoR estimation in optical motion capture. 2013, 29, 7-26	44
410	Intelligent systems based solutions for the kinematics problem of the industrial robot arms. 2013,	2
409	Continuous kinematic control with terminal attractors for handling task transitions of redundant robots. 2013,	1
408	Statistical Methods for Estimation of Direct and Differential Kinematics of the Vocal Tract. 2013, 55, 147-161	14
407	Real-time estimate of body kinematics during a planar squat task using a single inertial measurement unit. 2013, 60, 1920-6	46
406	Kinematic control of robot manipulators using filtered inverse. 2013,	4
405	Generalized humanoid leg inverse kinematics to deal with singularities. 2013,	3
404	Singularity analysis and steering control laws for adaptive-skew pyramid-type control moment gyros. 2013, 85, 120-137	22
403	Aircraft multi-constrainedgeneralized dynamic inversion control. 2013,	
402	Data-driven glove calibration for hand motion capture. 2013,	26
401	Next-Generation Maneuvering System with Control-Moment Gyroscopes for Extravehicular Activities Near Low-Gravity Objects. 2013,	2
400	Equipment Support Training System Design. 2013, 756-759, 4448-4453	
399	. 2013, 29, 346-362	139
398	Dynamic walking and whole-body motion planning for humanoid robots: an integrated approach. 2013, 32, 1089-1103	54

397	Singularity Avoidance for a Redundant Robot Using Fuzzy Motion Planning. 2013 , 479-480, 729-736	2
396	Dynamic multi-priority control in redundant robotic systems ¹ . 2013 , 31, 1155-1167	41
395	State-incremental optimal control of 3D COG pattern generation for humanoid robots. 2013 , 27, 175-188	7
394	Relative task prioritization for dual-arm with multiple, conflicting tasks: Derivation and experiments. 2013 ,	9
393	Online learning of humanoid robot kinematics under switching tools contexts. 2013 ,	5
392	A predictive model for haptic assistance in robot assisted trocar insertion. 2013 ,	2
391	Topology Aware Data-Driven Inverse Kinematics. 2013 , 32, 61-70	15
390	Rate Damping of a Spacecraft Using Two Single-Gimbal Control Moment Gyros. 2013 , 36, 1606-1623	13
389	Robot Control near Singularity and Joint Limit Using a Continuous Task Transition Algorithm. 2013 , 10, 346	27
388	Interactive-rate Motion Planning for Concentric Tube Robots. 2014 , 2014, 1915-1921	29
387	Handover planning for every occasion. 2014 ,	7
386	. 2014 , 50, 1726-1738	4
385	Robust solution of prioritized inverse kinematics based on Hestenes-Powell multiplier method. 2014 ,	10
384	Spherical parabolic blends for robot workspace trajectories. 2014 ,	3
383	Switchable task-priority framework for combining human-demonstrated and inverse kinematics tasks. 2014 ,	
382	Online human walking imitation in task and joint space based on quadratic programming. 2014 ,	19
381	Experimental study on efficient use of singular configuration in pulling heavy objects with two-link robot arm. 2014 ,	7
380	A novel singularity-consistent inverse kinematics decomposition for S-R-S type manipulators. 2014 ,	2

379	Intuitive Kinematic Control of a Robot Arm via Human Motion. 2014 , 79, 411-416	5
378	Coordination of a nonholonomic mobile platform and an on-board manipulator. 2014 ,	1
377	Modeling and Simulation of the Multiple Robot Applications. 2014 , 656, 223-231	1
376	Manipulator Velocities and Static Forces. 2014 , 1-43	
375	On intensity-based 3D visual servoing. 2014 , 62, 1636-1645	2
374	Robot coordination using task-priority and sliding-mode techniques. 2014 , 30, 74-89	9
373	HumanRobot cooperation control based on a dynamic model of an upper limb exoskeleton for human power amplification. 2014 , 24, 168-176	78
372	Inverse-free control of a robotic manipulator in a task space. 2014 , 62, 131-141	15
371	Motion planning for smooth pickup of moving objects. 2014 ,	19
370	Regularization of the differential inverse orientation problem of serial revolute joint manipulators. 2014 ,	1
369	Prioritized inverse kinematics using QR and cholesky decompositions. 2014 ,	4
368	A parallel evolutionary solution for the inverse kinematics of generic robotic manipulators. 2014 ,	2
367	Introduction to Humanoid Robotics. 2014 ,	90
366	Scaled Jacobian transpose based control for robotic manipulators. 2014 , 12, 1102-1109	5
365	Vision and locomotion control systems on a bio-inspired humanoid robot. 2014 ,	0
364	Directional passability and quadratic steering logic for pyramid-type single gimbal control moment gyros. 2014 , 102, 103-123	23
363	Cartesian control of an advanced tractors rear hitch Damped least-squares solution. 2014 , 47, 11565-11570	2
362	Overcoming Kinematic Singularities with the Filtered Inverse Approach. 2014 , 47, 8496-8502	2

361	Tool-Center-Point control of the KAI manipulator using constrained QP optimization. 2015 , 30, 85-93	10
360	Simulation of one effective human-robot cooperation method based on kinect sensor and uncalibrated visual servoing. 2015 ,	1
359	User modelling for personalised dressing assistance by humanoid robots. 2015 ,	3
358	Analysis of a moving remote center of motion for robotics-assisted minimally invasive surgery. 2015 ,	16
357	Optimization-based Full Body Control for the DARPA Robotics Challenge. 2015 , 32, 293-312	127
356	A Study on Dynamic Characteristics of Two-link Robot Arm near Singular Congurations. 2015 , 28, 377-383	1
355	Inverse kinematics with knee extension walking pattern for bipedal fast walking. 2015 ,	
354	Variable Impedance Control of Redundant Manipulators for Intuitive HumanRobot Physical Interaction. 2015 , 31, 850-863	200
353	. 2015 ,	0
352	Kinematically constrained workspace control via linear optimization. 2015 ,	4
351	Prioritized Inverse Kinematics with Multiple Task Definitions. 2015 ,	15
350	Kinematic finite-time control of robotic manipulators. 2015 ,	0
349	Whole body control of a dual arm underwater vehicle manipulator system. 2015 , 40, 191-200	24
348	Phase-dependent control of an upper-limb exoskeleton for assistance in self-feeding. 2015 ,	2
347	Singularity-Based Four-Bar Linkage Mechanism for Impulsive Torque With High Energy Efficiency. 2015 , 7,	5
346	Exploiting symmetries and extrusions for grasping household objects. 2015 ,	17
345	Desarrollo e implementaci3n de una estrategia de gesti3n de singularidades para un sistema rob3tico redundante cooperativo destinado a la asistencia en intervenciones quir3rgicas. 2015 , 12, 80-91	3
344	Task space control considering passive muscle stiffness for redundant robotic arms. 2015 , 8, 93-104	8

343	Adaptive Tracking Control without Image Velocity Measurement. 2015 , 734, 147-152	
342	The stable wheeled locomotion in low speed region for a wheel-legged mobile robot. 2015 ,	2
341	Task-Space Sensory Feedback Control of Robot Manipulators. 2015 ,	17
340	Tilted wheel satellite attitude control with air-bearing table experimental results. 2015 , 117, 414-429	6
339	Learning an inverse rig mapping for character animation. 2015 ,	12
338	One New Human-Robot Cooperation Method Based on Kinect Sensor and Visual-Servoing. 2015 , 523-534	1
337	Experimental verification of physical relation between a gimbal system and a body system: GYROBO. 2015 ,	0
336	Regularization of the differential inverse positioning problem of an elbow manipulator. 2015 ,	1
335	Closed-Loop Inverse Kinematics for Redundant Robots: Comparative Assessment and Two Enhancements. 2015 , 20, 944-955	70
334	Adaptive neural control of spacecraft using control moment gyros. 2015 , 55, 1382-1393	16
333	Comparison of Methods for Solving the Singular Configuration of a Wheel-Legged Mobile Robot. 2016 , 5, 378-391	
332	Low dimensional human preference tracking for motion optimization. 2016 ,	1
331	Attitude determination and control system for nadir pointing using magnetorquer and magnetometer. 2016 ,	4
330	Robust Inverse Kinematics at Position Level by Means of the Virtual Redundant Axis Method. 2016 , 21-29	1
329	Kinematic modeling and singularity treatment of steerable wheeled mobile robots with joint acceleration limits. 2016 ,	9
328	Nonlinear dynamic inversion for redundant systems using the EKF formalism. 2016 ,	2
327	Feedback ControlBased Inverse Kinematics Solvers for a Nuclear Decommissioning Robot. 2016 , 49, 177-184	13
326	. 2016 ,	

325	Second-order and implicit methods in numerical integration improve tracking performance of the closed-loop inverse kinematics algorithm. 2016,	1
324	A memetic algorithm approach for solving the task-based configuration optimization problem in serial modular and reconfigurable robots. 2016, 34, 1979-2008	4
323	Learning soft task priorities for safe control of humanoid robots with constrained stochastic optimization. 2016,	9
322	Resolved COG viscoelasticity control of a humanoid. 2016,	2
321	An integrated framework for human-robot collaborative assembly in hybrid manufacturing cells. 2016,	17
320	Singularity and joint limits avoidance for parallel mechanisms using the Filtered Inverse method. 2016,	1
319	A Novel Practical Technique to Integrate Inequality Control Objectives and Task Transitions in Priority Based Control. 2016, 84, 877-902	41
318	Inverse kinematics solution of a new circumferential drilling machine for aircraft assembly. 2016, 34, 98-117	7
317	Reactionless camera inspection with a free-flying space robot under reaction null-space motion control. 2016, 128, 707-721	9
316	Approximate Dynamic Programming in Tracking Control of a Robotic Manipulator. 2016, 13, 16	6
315	Task-based locomotion. 2016, 35, 1-11	28
314	. 2016, 21, 2755-2763	15
313	. 2016,	1
312	. 2016,	0
311	Numerical Solution of Inverse Kinematics. 2016, 34, 167-173	2
310	Learning soft task priorities for control of redundant robots. 2016,	19
309	Adaptive neural network-based satellite attitude control in the presence of CMG uncertainty. 2016, 54, 218-228	34
308	Extending FABRIK with model constraints. 2016, 27, 35-57	20

307	Beyond Watching: Action Understanding by Humans and Implications for Motion Planning by Interacting Robots. 2016 , 139-167	3
306	. 2016 ,	6
305	Active balance of humanoids with foot positioning compensation and non-parametric adaptation. 2016 , 75, 297-309	5
304	Dynamic Neural Networks for Kinematic Redundancy Resolution of Parallel Stewart Platforms. 2016 , 46, 1538-50	46
303	Method for improving the position precision of a hydraulic robot arm: dual virtual spring-damper controller. 2016 , 9, 93-99	6
302	A whole-body rescue motion control with task-priority strategy for a rescue robot. 2017 , 41, 243-258	9
301	Towards a learnt neural body schema for dexterous coordination of action in humanoid and industrial robots. 2017 , 41, 945-966	3
300	Collision-free motion planning of a virtual arm based on the FABRIK algorithm. 2017 , 35, 1431-1450	6
299	Inverse kinematics using dynamic joint parameters: inverse kinematics animation synthesis learnt from sub-divided motion micro-segments. 2017 , 33, 1541-1553	3
298	Robust adaptive multi-task tracking control of redundant manipulators with dynamic and kinematic uncertainties and unknown disturbances. 2017 , 31, 482-495	7
297	LQR/LQG attitude stabilization of an agile microsatellite with CMG. 2017 , 89, 290-296	6
296	Effective Manipulation in Confined Spaces of Highly Articulated Robotic Instruments for Single Access Surgery. 2017 , 2, 1704-1711	23
295	Multi-Variate Gaussian-Based Inverse Kinematics. 2017 , 36, 418-428	8
294	Technical Overview of Team DRC-Hubo@UNLV's Approach to the 2015 DARPA Robotics Challenge Finals. 2017 , 34, 874-896	15
293	Geometric and Numerical Aspects of Redundancy. 2017 , 67-85	3
292	Analytical formula for the pseudoinverse and its application for singular path tracking with a class of redundant robotic limbs. 2017 , 31, 509-518	5
291	Redundancy Resolution of Kinematically Redundant Parallel Manipulators Via Differential Dynamic Programming. 2017 , 9,	15
290	Singularity avoidance of 6R decoupled manipulator using improved Gaussian distribution damped reciprocal algorithm. 2017 , 44, 324-332	6

289	A framework for singularity-robust manipulator control during physical human-robot interaction. 2017 , 36, 861-876		16
288	Gradient Projection of Weighted Jacobian Matrix Method for Inverse Kinematics of a Space Robot With a Controlled-Floating Base. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2017 , 139,	1.6	8
287	Optimal capture occasion determination and trajectory generation for space robots grasping tumbling objects. 2017 , 136, 380-386		18
286	Team THOR's Entry in the DARPA Robotics Challenge Finals 2015. 2017 , 34, 775-801		7
285	Motion Discontinuity-Robust Controller for Steerable Mobile Robots. 2017 , 2, 452-459		14
284	Robust prescribed performance tracking control for free-floating space manipulators with kinematic and dynamic uncertainty. 2017 , 71, 568-579		26
283	. 2017 ,		5
282	Quadrupedal locomotion using trajectory optimization and hierarchical whole body control. 2017 ,		1
281	Inverse kinematics for autonomous underwater manipulations using weighted damped least squares. 2017 ,		4
280	The planning of optimal motions of non-holonomic systems. 2017 , 90, 2163-2184		2
279	A manipulative instrument with simultaneous gesture and end-effector trajectory planning and controlling. 2017 , 88, 055107		
278	Strategy Optimization for Energy Efficient Extraterrestrial Drilling Using Combined Power Map. 2017 , 2, 1980-1987		2
277	Robust Task Space Finite-Time Chattering-Free Control of Robotic Manipulators. 2017 , 85, 471-489		9
276	Learning Inverse Rig Mappings by Nonlinear Regression. 2017 , 23, 1167-1178		3
275	Robot System of DRC-HUBO+ and Control Strategy of Team KAIST in DARPA Robotics Challenge Finals. 2017 , 34, 802-829		58
274	Constraint finite-time control of redundant manipulators. 2017 , 27, 639-660		11
273	Hybrid position/force control of an upper-limb exoskeleton for assisted drilling. 2017 ,		3
272	Kinematic singularity avoidance for robot manipulators using set-based manipulability tasks. 2017 ,		8

271	The basic components of the computer intelligence for adept six-300 robot. 2017,	
270	Kinematic Modeling and Control Design of a Novel Single-Rail Parallel Arm * *This work was partially supported by The Norwegian Centre for International Cooperation in Education (SIU) and The Research Council of Norway (RCN).. 2017, 50, 11434-11440	
269	A New Procedure for Tuning an Allocator and Designing a Robust High-Level Control Law for Over-Actuated Systems.. 2017, 50, 12741-12747	
268	Kinematically Optimal Robust Control of Redundant Manipulators. 2017, 22, 839-865	
267	Empirical verification of a controllable angle of a single-wheel mobile robot. 2017,	
266	Robonaut 2 and you: Specifying and executing complex operations. 2017,	5
265	Research on singular robustness algorithm of robot inverse kinematics based on dynamic damping coefficient. 2017,	1
264	Optimal kinematic finite-time control of mobile manipulators. 2017,	3
263	Forward Dynamics Compliance Control (FDCC): A new approach to cartesian compliance for robotic manipulators. 2017,	14
262	Regularization of the differential inverse orientation problem of generic serial revolute joint manipulators. 2017,	
261	Human motion reproduction by torque-based humanoid tracking control for active assistive device evaluation. 2017,	4
260	Cooperative motion planning of redundant rover manipulators on uneven terrains. 2017,	
259	Torque efficient motion through singularity. 2017,	4
258	Preliminary experiments for postural control using wearable-CMG. 2017,	4
257	Hierarchical Force and Positioning Task Specification for Indirect Force Controlled Robots. 2018, 34, 280-286	11
256	Robot System of DRC-HUBO+ and Control Strategy of Team KAIST in DARPA Robotics Challenge Finals. 2018, 27-69	3
255	Team THOR Entry in the DARPA Robotics Challenge Finals 2015. 2018, 381-427	0
254	Team DRC-Hubo@UNLV in 2015 DARPA Robotics Challenge Finals. 2018, 309-346	1

253	Control of UVMSs. 2018 , 175-329	
252	Attitude Stabilisation and Control of Earth Satellites. 2018 , 1133-1211	
251	A New Approach to Time-Optimal Path Parameterization Based on Reachability Analysis. 2018 , 34, 645-659	41
250	Speed-constrained three-axes attitude control using kinematic steering. 2018 , 147, 1-8	7
249	Teleoperation by Using Nonisomorphic Mechanisms in the Master-Slave Configuration for Speed Control. 2018 , 12, 1369-1380	5
248	Feasibility of motion laws for planar one degree of freedom linkage mechanisms at dead point configurations. 2018 , 98, 834-851	2
247	A TE-E Optimal Planning Technique Based on Screw Theory for Robot Trajectory in Workspace. 2018 , 91, 363-375	2
246	Inverse Kinematics Techniques in Computer Graphics: A Survey. 2018 , 37, 35-58	65
245	Maximum Null Motion Algorithm for Single Gimbal Control Moment Gyroscopes. 2018 , 689-707	0
244	Position-based kinematics for 7-DoF serial manipulators with global configuration control, joint limit and singularity avoidance. 2018 , 121, 317-334	42
243	d-/l-Isothymidine incorporation in the core sequence of aptamer BC15 enhanced its binding affinity to the hnRNP A1 protein. 2018 , 16, 7488-7497	3
242	An Efficient Motion Generation Method for Redundant Humanoid Robot Arm Based on the Intrinsic Principles of Human Arm Motion. 2018 , 15, 1850026	6
241	Stochastic Search Methods for Mobile Manipulators. 2018 , 17, 976-984	0
240	Multi-objective Steering Law Design for Attitude Control of a Spacecraft with CMGs. 2018 , 31, 305-311	
239	Continuously Shaping Projections and Operational Space Tasks. 2018 ,	7
238	Inverse Kinematic Control of a Free-Floating Underwater Manipulator Using the Generalized Jacobian Matrix. 2018 ,	1
237	Inverse Kinematic Control Method of Redundant Manipulators with Joint Limits Constraints. 2018 ,	0
236	Grasp Quality Evaluation with Whole Arm Kinematic Noise Propagation. 2018 ,	1

235	An efficient motion generation method for redundant humanoid robot arms based on motion continuity. 2018 , 32, 1185-1196	3
234	Task-space cooperative tracking control of multi-robot systems with unknown parameters and time delays. 2018 ,	1
233	. 2018 ,	1
232	GA Based Adaptive Singularity-Robust Path Planning of Space Robot for On-Orbit Detection. 2018 , 2018, 1-11	7
231	Task priority control of underwater intervention systems: Theory and applications. 2018 , 164, 40-54	24
230	Comparison of control methods: Learning robotics manipulation with contact dynamics. 2018 ,	
229	Singularity Resolution in Equality and Inequality Constrained Hierarchical Task-Space Control by Adaptive Nonlinear Least Squares. 2018 , 3, 3630-3637	4
228	The iSnake Robotic Platform for Endoscopic Surgery. 2018 , 46, 1663-1675	45
227	Modeling and planning of assembling cell in cellular space robot. 2018 ,	
226	Spacecraft angular velocity trajectory planning for SGCMG singularity avoidance. 2018 , 151, 284-295	7
225	A study on avoiding joint limits for inverse kinematics of redundant manipulators using improved clamping weighted least-norm method. 2018 , 32, 1367-1378	15
224	Deeply-learnt damped least-squares (DL-DLS) method for inverse kinematics of snake-like robots. 2018 , 107, 34-47	13
223	Passive and active rehabilitation control of human upper-limb exoskeleton robot with dynamic uncertainties. 2018 , 36, 1757-1779	15
222	Dynamic advantages of singular configurations in moving heavy objects with a 3-DOF robot manipulator. 2018 ,	
221	A teleoperated snake-like robot for minimally invasive radiosurgery of gastrointestinal tumors. 2018 ,	5
220	Robust and adaptive dynamic controller for fully-actuated robots in operational space under uncertainties. 2019 , 43, 1023-1040	16
219	Tracking the Kinematically Optimal Trajectories by Mobile Manipulators. 2019 , 93, 635-648	5
218	Steering law of control moment gyros using artificial potential function approach. 2019 , 157, 374-389	8

217	Resolved Viscoelasticity Control Considering Singularity for Knee-stretched Walking of a Humanoid. 2019 ,	3
216	Continuous path control for optimal wrist singularity avoidance in a serial robot. 2019 , 140, 809-824	5
215	A singularity handling algorithm based on operational space control for six-degree-of-freedom anthropomorphic manipulators. 2019 , 16, 172988141985891	3
214	References. 2019 , 177-184	
213	Control strategies for cleaning robots in domestic applications: A comprehensive review. 2019 , 16, 172988141985743	7
212	Motion Control for Steerable Wheeled Mobile Manipulation. 2019 ,	3
211	Copula-Based Approach to Construct a Joint Probabilistic Model of Earthquakes and Strong Winds. 2019 , 19, 1950046	7
210	Backstepping Control for Satellite Attitude Control Using Spherical Control Moment Gyro. 2019 ,	2
209	Dynamically-consistent Generalized Hierarchical Control. 2019 ,	7
208	Geometric Search-Based Inverse Kinematics of 7-DoF Redundant Manipulator with Multiple Joint Offsets. 2019 ,	7
207	Maximal isometric force exertion predicted by the force feasible set formalism: application to handbraking. 2019 , 62, 1551-1562	
206	Kinematics in the metric space. 2019 , 84, 13-23	2
205	Cartesian Sliding Mode Control of an Upper Extremity Exoskeleton Robot for Rehabilitation. 2019 , 201-220	1
204	Motion Planning to Reduce the Thrust of Underwater Robot Using Null-Space Compliance. 2019 , 229-235	
203	Optimal cascaded control of mobile manipulators. 2019 , 96, 1367-1389	2
202	Compliant adaptive control of human upper-limb exoskeleton robot with unknown dynamics based on a Modified Function Approximation Technique (MFAT). 2019 , 117, 92-102	7
201	Minimum distance calculation using laser scanner and IMUs for safe human-robot interaction. 2019 , 58, 33-42	37
200	Complementary-route based ICR control for steerable wheeled mobile robots. 2019 , 118, 131-143	10

199	RRT-Based Steering Law for Singularity Avoidance of Control Moment Gyros used for Spacecraft Target Acquisition. 2019,	1
198	Inverse Kinematics with Forward Dynamics Solvers for Sampled Motion Tracking. 2019,	3
197	Predictive Inverse Kinematics: optimizing Future Trajectory through Implicit Time Integration and Future Jacobian Estimation. 2019,	1
196	ROSI: A Novel Robotic Method for Belt Conveyor Structures Inspection. 2019,	5
195	Tool-center-point control of a flexible link concrete pump with hydraulic limitations using quadratic programming. 2019,	7
194	Role Adaptation and Force, Impedance Learning For Physical Human-Robot Interaction. 2019,	0
193	An Approach to Trajectory Planning for Underwater Redundant Manipulator Considering Hydrodynamic Effects. 2019, 377-388	3
192	Real-time body tracking in virtual reality using a Vive tracker. 2019, 23, 155-168	36
191	Historical Perspective and Scope. 2019, 665-674	
190	Differential Kinematics. 2019, 675-721	0
189	Kinematics. 2019, 15-82	0
188	A General Approach for Automating Teleoperated Construction Machines. 2020, 210-219	1
187	Bicycle exercise training improves ambulation in patients with peripheral artery disease. 2020, 71, 979-987	6
186	An Experimentally Validated Technique for the Real-Time Management of Wrist Singularities in Nonredundant Anthropomorphic Manipulators. 2020, 28, 1611-1620	
185	Reinforcement Learning of Bimanual Robot Skills. 2020,	2
184	. 2020, 5, 508-515	1
183	Optimal Trajectories and Robot Control for Detumbling a Non-Cooperative Satellite. 2020, 43, 981-988	6
182	Collision Avoidance with Proximity Servoing for Redundant Serial Robot Manipulators. 2020,	8

181	Human Preferences in Using Damping to Manage Singularities During Physical Human-Robot Collaboration. 2020 ,	0
180	Learning of Key Pose Evaluation for Efficient Multi-contact Motion Planner. 2020 ,	0
179	Robust and efficient forward, differential, and inverse kinematics using dual quaternions. 2020 , 027836492093694	
178	Motion Planning of Planar Closed Chains Based on Structural Sets. 2020 , 8, 117203-117217	1
177	Convergent EKF-based control allocation: general formulation and application to a Control Moment Gyro cluster. 2020 ,	1
176	Improved singular robust inverse solutions of redundant serial manipulators. 2020 , 17, 172988142093204	1
175	Effects of deposition velocity in the presence/absence of E6-glass fibre on extrusion-based 3D printed mortar. 2020 , 32, 101069	11
174	On the Evaluation of Force Feedback Augmented Teleoperation of Excavator-like Mobile Manipulators. 2020 ,	1
173	Local Optimal Tracking Control for Manipulators with Restrictive Joint Velocity and Acceleration Limits. 2020 ,	0
172	Enhancement of Force Exertion Capability of a Mobile Manipulator by Kinematic Reconfiguration. 2020 , 5, 5842-5849	8
171	Stabilized blendshape editing using localized Jacobian transpose descent. 2020 , 112, 101091	2
170	Advances on Robotic Item Picking. 2020 ,	2
169	Rapid Orbital Motion Emulator (ROME): Kinematics. 2020 ,	1
168	A Motion Mapping System for Humanoids that Provides Immersive Telepresence Experiences. 2020 ,	
167	. 2020 , 56, 4841-4855	7
166	Adaptive Fuzzy-Region-Based Control of Euler-Lagrange Systems With Kinematically Singular Configurations. 2020 , 1-1	5
165	Master-Slave Bipedal Walking and Semi-Automatic Standing Up of Humanoid Robots. 2020 ,	1
164	Extended singular robust inverse solution of redundant serial manipulators. 2020 , 12, 168781402090773	

163	A New Viewpoint on Control Algorithms for Anthropomorphic Robotic Arms. 2020 , 99, 647-658	2
162	Dynamic accuracy ant colony optimization of inverse kinematic (DAACOIK) analysis of multi-purpose deployer (MPD) for CFETR remote handling. 2020 , 156, 111522	3
161	Fast and robust numerical method for inverse kinematics with prioritized multiple targets for redundant robots. 2020 , 34, 1068-1078	4
160	Maxwell Model-Based Null Space Compliance Control in the Task-Priority Framework for Redundant Manipulators. 2020 , 8, 35892-35904	2
159	Mixed Reality Enhanced User Interactive Path Planning for Omnidirectional Mobile Robot. 2020 , 10, 1135	16
158	Optimization of dynamic load distribution of a serial-parallel hybrid humanoid arm. 2020 , 149, 103792	13
157	An Adaptive Second Order Sliding Mode Inverse Kinematics Approach for Serial Kinematic Chain Robot Manipulators. 2020 , 9, 4	2
156	Developments of attitude determination and control system of microsats: A survey. 2020 , 095965181989517	2
155	Cartesian trajectory planning of space robots using a multi-objective optimization. 2021 , 108, 106360	17
154	On Null Space-Based Inverse Kinematics Techniques for Fleet Management: Toward Time-Varying Task Activation. 2021 , 37, 257-274	2
153	Encyclopedia of Robotics. 2021 , 1-10	
152	Development of Control Method for Active Ball Joint Mechanism Considering Singularity of Spherical Gear. 2021 ,	0
151	Tool-Center-Point Control of a Concrete Pump Using Constrained Quadratic Optimization. 2021 , 18, 382-396	2
150	A Task Space Virtual Fixture Architecture for Tele-operated Surgical System with Slave Joint Limit Constraints. 2021 , 1-1	4
149	Cartesian coordinate control for teleoperated construction machines. 2021 , 5, 1-11	2
148	A novel inverse kinematics method for 6-DOF robots with non-spherical wrist. 2021 , 157, 104180	7
147	Toward mission-dependent long robotic arm enhancement: design method of flying watch attachment allocation based on thrust drivability. 2021 , 8,	1
146	Maxwell-Model-Based Compliance Control for HumanRobot Friendly Interaction. 2021 , 13, 118-131	2

- 145 Extending FABRIK with Obstacle Avoidance for Solving the Inverse Kinematics Problem. **2021**, 2021, 1-10
- 144 Kinematic design of linkage-based haptic interfaces for medical applications: a review. **2021**, 3, 022005 0
- 143 References. **2021**, 681-699
- 142 A control structure for ambidextrous robot arm based on Multiple Adaptive Neuro-Fuzzy Inference System. **2021**, 15, 1518-1532 2
- 141 Deep Reinforcement Learning of Robotic Prosthesis for Gait Symmetry in Trans-Femoral Amputated Patients. **2021**, 0
- 140 Singularity Avoidance Path Planning on Cooperative Task of Dual Manipulator Using DDPG Algorithm. **2021**, 16, 137-146 1
- 139 Optimal path crossing the orientation exclusion zone of a robot with offset wrist. 1-22 0
- 138 A new torque minimization method for heavy-duty redundant manipulators used in nuclear decommissioning tasks. **2021**, 14, 459-469 2
- 137 Observer-based fixed-time tracking control for space robots in task space. **2021**, 184, 35-45 3
- 136 Dynamic modeling and design of controller for the 2-DoF serial chain actuated by a cable-driven robot based on feedback linearization. 095440622110279 1
- 135 Global Steering for Control Moment Gyroscope Clusters Using Heuristic Variable Search Techniques. **2021**, 58, 972-983 1
- 134 Wrist singularity avoidance with a robot end-effector adding an oblique, redundant axis. **2021**, 162, 104355 0
- 133 Dynamic model estimating and designing controller for the 2-DoF planar robot in interaction with cable-driven robot based on adaptive neural network. **2021**, 41, 1261-1280 2
- 132 ROSI: A Robotic System for Harsh Outdoor Industrial Inspection - System Design and Applications. **2021**, 103, 1 3
- 131 Continuous Inverse Kinematics in Singular Position. **2022**, 24-36 1
- 130 A Modified DLS Scheme With Controlled Cyclic Solution for Inverse Kinematics in Redundant Robots. **2021**, 17, 8014-8023 2
- 129 Redundancy Resolution and Disturbance Rejection via Torque Optimization in Hybrid Cable-Driven Robots. **2021**, 1-11
- 128 Kinematic Optimization for the Design of a Collaborative Robot End-Effector for Tele-Echography. **2021**, 10, 8 1

127	Design and On-Orbit Evaluation of Magnetic Attitude Control System for the BEIMEI Microsatellite. 2008 , 185-197	6
126	Workspace Fitting and Control for a Serial-Robot Motion Simulator. 2009 , 183-190	1
125	Differential Kinematics and Statics. 2000 , 79-129	2
124	Task space control. 1996 , 115-139	1
123	Generalized Kinematic Control of Redundant Manipulators. 2007 , 219-226	2
122	Lucy, Take the Noodle Box! Domestic Object Manipulation Using Movement Primitives and Whole Body Motion. 2019 , 189-200	3
121	Obstacle Avoidance with Industrial Robots. 2015 , 113-145	9
120	Natural Motion and Singularity-Consistent Inversion of Robot Manipulators. 2006 , 9-33	1
119	Planning and Moving in Dynamic Environments. 2009 , 151-191	4
118	A Bayesian View on Motor Control and Planning. 2010 , 227-252	15
117	Reordering and Partitioning Jacobian Matrices Using Graph-Spectral Method. 2009 , 696-705	0
116	Evolutionary Design of a Robotic Manipulator for a Highly Constrained Environment. 2011 , 109-121	3
115	A Trajectory Tracking Application of Redundant Planar Robot Arm via Support Vector Machines. 2011 , 192-202	8
114	Controllability Issues of Robots near Singular Configurations. 1991 , 283-290	4
113	Constraint Compliant Control for a Redundant Manipulator in a Cluttered Environment. 2010 , 367-376	3
112	Differential Kinematics. 2017 , 1-47	1
111	Computational Considerations on Kinematics Inversion of Multi-Link Redundant Robot Manipulators. 1993 , 75-84	2
110	Robust Adaptive Tracking Control of Uncertain Rehabilitation Exoskeleton Robot. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2019 , 141,	1.6 5

109	Joint-level force sensing for indirect hybrid force/position control of continuum robots with friction. 2021 , 40, 764-781	6
108	Autonomous Control of Reaching Movement by MobilityMeasure. 2007 , 19, 448-458	6
107	Snake Robot Locomotion Patterns for Straight and Curved Pipe. 2018 , 68, 91-104	3
106	Rotational Maneuvers and Attitude Control. 2008 , 403-486	2
105	Attitude Control of Agile Spacecraft Using Momentum Exchange Devices. 2006 , 7, 14-25	1
104	Collision-Free Path Planning for a Redundant Manipulator Based on PRM and Potential Field Methods. 2011 , 17, 362-367	6
103	Numerical Solution of Prioritized Inverse Kinematics Using the Method of Sections. 2019 , 37, 711-717	1
102	A Cable-Driven Hyperredundant Manipulator: Obstacle-Avoidance Path Planning and Tension Optimization. 2021 , 2-21	
101	Prediction-Error Negativity to Assess Singularity Avoidance Strategies in Physical Human-Robot Collaboration. 2021 ,	1
100	Dynamic Projection of Human Motion for Safe and Efficient Human-Robot Collaboration. 2021 ,	
99	Improving Safety and Accuracy of Impedance Controlled Robot Manipulators with Proximity Perception and Proactive Impact Reactions. 2021 ,	1
98	Singularity Avoidance of Humanoid Manipulator Based on Workspace Decomposition. 2022 , 201-212	
97	Predefined-time control for free-floating space robots in task space. 2021 , 358, 9542-9542	0
96	A Motion Generation System, MODAN, Based on Motion Dynamics Model for Character Animation. 2003 , 2, 165-172	
95	Task Reconstruction Method for Real-Time Singularity Avoidance for Robotic Manipulators : Dynamic Task Priority Based Analysis. 2004 , 10, 855-868	
94	Alternative Capturability Analysis of PN Laws. 2006 , 7, 1-13	
93	Design Criteria and Cluster Configuration Improvement of Single Gimbal Control Moment Gyros for Satellite. 2008 , 36, 48-56	4
92	Control Moment Gyros for Agile Imaging Satellites. 2008 , 665-740	

- 91 Virtual Robot Experimentation Platform [A Versatile Small Footprint Robot Simulator. **2008**, 20, 47-60 1
- 90 A New Steering Law with Designated Direction Escape (DDE) for Control Moment Gyros. **2009**, E92-A, 315-317 2
- 89 Nonlinear Spacecraft Stability and Control. **2009**, 351-436
- 88 Automatic and Interactive Key Posture Design by Combing the PIK with Parametric Posture Splicing. **2009**, 119-130
- 87 Real-Time Character Control for Wrestling Games. **2009**, 128-137
- 86 Identification of Base Parameters for Large-scale Kinematic Chains Based on Physical Consistency Approximation by Polyhedral Convex Cones. **2010**, 91-98 2
- 85 Reactive Motion Planning of a Wheeled Mobile Robot by Using Virtual Manipulators. **2011**, 29, 163-171 1
- 84 Sensor-Based Integration of Full-Body Object Manipulation Based on Strategy Selection in a Life-Sized Humanoid Robot. **2011**, 23, 239-248 8
- 83 Numerical Solution Using Nonlinear Least-Squares Method for Inverse Kinematics Calculation of Redundant Manipulators. **2012**, 24, 363-371 3
- 82 Real-Time Trajectory Generation for Both Arms of a Humanoid Robot. **2013**, 383-390
- 81 Arm Gesture Generation of Humanoid Robot Mybot-KSR for Human Robot Interaction. **2013**, 36-48
- 80 Kinematic Control of UVMSs. **2014**, 127-167 1
- 79 Kinematic Control. **2014**, 53-78
- 78 THE AUGMENTED TASK SPACE APPROACH FOR REDUNDANT MANIPULATOR CONTROL. **1989**, 125-129 1
- 77 RESOLVING REDUNDANCY THROUGH A WEIGHTED DAMPED LEAST-SQUARES SOLUTION. **1992**, 99-104
- 76 Coping with Joint Velocity Limits in First-Order Inverse Kinematics Algorithms. **1994**, 319-328
- 75 Control of Reduntant Robots at Singularities in Degenerate Directions. **1997**, 319-326
- 74 A Tool for Robot Design: Feasible Trajectory from a Singularity. **1997**, 235-244

- 73 Manipulator Velocities and Static Forces. **2015**, 1809-1854
- 72 Solution Space of Inverse Differential Kinematics. **2015**, 10, 230-244 2
- 71 Real-Time Full-Body Pose Synthesis and Editing. **2016**, 1-16
- 70 Rotational Maneuvers and Attitude Control. **2016**, 403-486
- 69 Introduction. 1-41
- 68 Gimballess Attitude Control System for Spacecraft Using Spherical Rotor. **2017**, 6, 100-104
- 67 Singularity Avoidance Algorithms for Controlling Robot Manipulator: A Comparative Study. **2017**, 12, 42-54 3
- 66 A GPU-Based Evolution Algorithm for Motion Planning of a Redundant Robot. **2017**, 2,
- 65 Real-Time Full-Body Pose Synthesis and Editing. **2018**, 1959-1974
- 64 Generalization of the Virtual Redundant Axis Method to Multiple Serial-Robot Singularities. **2019**, 499-506 1
- 63 A Unified Framework for Overcoming Motion Constraints of Robots Using Task Transition Algorithm. **2018**, 13, 129-141 1
- 62 An Algorithm for Trajectory Generation in Redundant Manipulators with Joint Transmission Accommodation. **2019**, 92-99
- 61 Mobility Transition Control of a Reconfigurable Mobile Manipulator Torso. **2019**, 2651-2660
- 60 Motion Planning for a Humanoid Robot with Task Dependent Constraints. **2019**, 1681-1690 1
- 59 Touch Screen Based Assistance Technique for Underwater Manipulation of Cable Burying ROV. **2019**, 36, 349-361 1
- 58 Implementation of modified FABRIK for robot manipulators. **2019**,
- 57 Inverse Kinematics and Relative Arm Positioning. **2020**, 25-52
- 56 Kinematics and Singularity Analysis of a 7-DOF Redundant Manipulator. **2021**, 21, 1

55	Singularity Processing Algorithm for Inverse Kinematics of 6-DOF Series Robot. 2020,	
54	Designing Cartman: A Cartesian Manipulator for the Amazon Robotics Challenge 2017. 2020, 125-148	
53	Obstacle Avoidance Path Planning of Space Redundant Manipulator Based on a Collision Detection Algorithm. 2020, 38, 183-190	3
52	Improved Damped Least Squares Inverse Kinematics with Joint limits for 7-DOF π -FLow Humanoid Robot Manipulator. 2021,	0
51	An Improved Weighted Gradient Projection Method for Inverse Kinematics of Redundant Surgical Manipulators. 2021, 21,	2
50	Haptic Teleoperation of Robotic Manipulator. 2007, 51-59	1
49	A Novel Inverse Kinematics Method for Upper-Limb Exoskeleton under Joint Coordination Constraints. 2020,	2
48	Operational Space Formulation and Inverse Kinematics for an Arm Exoskeleton with Scapula Rotation. 2020,	
47	Predictive Damped Inverse Kinematics for Redundant and Underactuated Robotic Systems. 2020,	0
46	Motion Planning of Quadruped Robot Using Potential Field. 2021,	
45	Contact Anticipation for Physical HumanRobot Interaction with Robotic Manipulators using Onboard Proximity Sensors. 2021,	1
44	BogieBot: A Climbing Robot in Cluttered Confined Space of Bogies with Ferrous Metal Surfaces. 2021,	0
43	Singularity Avoidance in Spacecraft with Single-Gimbal CMGs Using RRT-Based Steering Laws. 2022,	1
42	Trajectory Planning of 7-DOF Humanoid Redundant Manipulator Based on Time Optimization. 2022 , 527-544	
41	Singularity-Free Inverse Kinematics with Joint Prioritization for Manipulators. 1	
40	Singular Configuration Analysis and Singularity Avoidance with Application in an Intelligent Robotic Manipulator.. 2022, 22,	0
39	A Metaheuristic Optimization Approach for Trajectory Tracking of Robot Manipulators. 2022, 10, 1051	2
38	Singularity Analysis and Singularity Avoidance Trajectory Planning for Industrial Robots. 2021,	

- 37 Enhanced Hybrid Position and Admittance Control Based on Nonholonomic Wheeled Mobile Manipulator with Redundancy. **2021**,
- 36 Fast and Robust Inverse Kinematics of Serial Robots Using Halley's Method. **2022**, 1-13
- 35 Geometric Insights into Kinematically-Singular Configurations of Planar Continuum Robots. **2022**, 237-247
- 34 A Novel Solution to the Inverse Kinematics Problem of General 7R Robots. **2022**, 1-1
- 33 A speedup method for solving the inverse kinematics problem of robotic manipulators. **2022**, 19, 17298806221d046
- 32 A Geometric Approach for Real-Time Forward Kinematics of the General Stewart Platform. **2022**, 22, 4829 1
- 31 Robotic Disassembly of Electric Vehicles' Battery Modules for Recycling. **2022**, 15, 4856 3
- 30 Quantifying Demonstration Quality for Robot Learning and Generalization. **2022**, 7, 9659-9666
- 29 Nonlinear Spacecraft Stability and Control. **2018**, 387-518
- 28 Experimental Evaluation of Marionette Algorithm for Disaster-Responding Special-Purpose Machinery. **2022**,
- 27 Inverse kinematics strategies for physical human-robot interaction using low-impedance passive link shells. 1-15
- 26 Versatile articulated aerial robot DRAGON: Aerial manipulation and grasping by vectorable thrust control. 027836492211124 1
- 25 Resolved viscoelasticity control for robust walking of a humanoid with knee-stretched posture considering singularity. **2022**, 157, 104218
- 24 A Review on the Environment Perception and Control Technologies for the Hyperredundant Manipulators in Limited Space. **2022**, 2022, 1-15 0
- 23 A novel inverse kinematics for solving repetitive motion planning of 7-DOF SRS manipulator. 1-18 0
- 22 DexMV: Imitation Learning for Dexterous Manipulation from Human Videos. **2022**, 570-587 2
- 21 Actuator Commanding. **2023**, 89-113 0
- 20 The Dexterity Capability Map for a Seven-Degree-of-Freedom Manipulator. **2022**, 10, 1038 0

19	Evaluating Sensorimotor Abstraction on Curricula for Learning Mobile Manipulation Skills. 2022,	o
18	Robotic Manipulator Expressive Movements Control Using Kinematic Redundancy. 2022, 10, 1118	o
17	An Uncalibrated Image-Based Visual Servo Strategy for Robust Navigation in Autonomous Intravitreal Injection. 2022, 11, 4184	o
16	Obstacle avoidance method for fixed trajectory of a seven-degree-of-freedom manipulator. 1-21	o
15	A Deep Learning Approach to Navigating the Joint Solution Space of Redundant Inverse Kinematics and Its Applications to Numerical IK Computations. 2023, 11, 2274-2290	o
14	Encountering singularities of a serial robot along continuous paths at high precision. 2023, 181, 105224	1
13	Human-to-Robot Manipulability Domain Adaptation with Parallel Transport and Manifold-Aware ICP. 2022,	o
12	A Whole-Body Controller Based on a Simplified Template for Rendering Impedances in Quadruped Manipulators. 2022,	o
11	End-Point Stiffness and Joint Viscosity Control of Musculoskeletal Robotic Arm Using Muscle Redundancy. 2022,	o
10	Whole-Body Control for Velocity-Controlled Mobile Collaborative Robots Using Coupling Dynamic Movement Primitives. 2022,	o
9	Humanoid Running based on 3D COG-ZMP Model and Resolved Centroidal Viscoelasticity Control. 2022,	o
8	When Prioritization Meets Input-output Linearization: A Prioritized Multi-objective Control and Case Study with Two-link Manipulator. 2022,	o
7	A robust and compliant framework for legged mobile manipulators using virtual model control and whole-body control. 2023, 164, 104411	o
6	A practical method for the deformation of long-stroke hydraulic manipulators in grasping-handling tasks. 2023, 40, 862-878	o
5	Accelerating Numerical Inverse Kinematics Methods with the Lookup Table. 2022,	o
4	A Bi-objective Organ Transplant Supply Chain Network with Recipient Priority Considering Carbon Emission Under Uncertainty, a Case Study.	o
3	Kinematics Model Optimization Algorithm for Six Degrees of Freedom Parallel Platform. 2023, 13, 3082	8
2	COM Shifter and Body Rotator for Step-by-Step Teleoperation of Bipedal Robots. 2023, 11, 25786-25800	o

- 1 Inverse Kinematic Solution Extention for a Robot to Cope with Joint Angle Constraints. o