

# Arun K Samantaray

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/3450805/arun-k-samantaray-publications-by-year.pdf>

**Version:** 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. 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.

131  
papers

1,932  
citations

25  
h-index

38  
g-index

135  
ext. papers

2,214  
ext. citations

2.6  
avg, IF

5.36  
L-index

#	Paper	IF	Citations
131	Fractional-order Bouc-wen hysteresis model for pneumatically actuated continuum manipulator. <i>Mechanism and Machine Theory</i> , <b>2022</b> , 173, 104841	4	2
130	Three Kinds of Sommerfeld Effect in Rotor Dynamics. <i>Mechanisms and Machine Science</i> , <b>2022</b> , 85-125	0.3	
129	Joint-Space Kinematic Control of a Bionic Continuum Manipulator in Real-Time by Using Hybrid Approach. <i>IEEE Access</i> , <b>2022</b> , 10, 47031-47050	3.5	0
128	Bond graph modeling of a spatial multi-section soft bionic robot. <i>Mechanism and Machine Theory</i> , <b>2022</b> , 174, 104902	4	0
127	Dynamics of a rotor shaft driven by a non-ideal source through a universal joint. <i>Journal of Sound and Vibration</i> , <b>2021</b> , 499, 115992	3.9	2
126	Resonant capture and Sommerfeld effect due to torsional vibrations in a double Cardan joint driveline. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2021</b> , 97, 105728	3.7	4
125	Bond graph modeling and multi-body dynamics of a twin rotor system. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2021</b> , 235, 117-144	1	1
124	Effect of selection criterion on the kineto-static solution of a redundant cable-driven parallel robot considering cable mass and elasticity. <i>Mechanism and Machine Theory</i> , <b>2021</b> , 156, 104175	4	8
123	Jacobian-Based Inverse Kinematics Analysis of a Pneumatic Actuated Continuum Manipulator. <i>Lecture Notes in Mechanical Engineering</i> , <b>2021</b> , 3-13	0.4	1
122	Prognosis of Dynamical System Components with Varying Degradation Patterns using model data fusion. <i>Reliability Engineering and System Safety</i> , <b>2021</b> , 213, 107683	6.3	3
121	Workspace analysis and design of large-scale cable-driven printing robot considering cable mass and mobile platform orientation. <i>Mechanism and Machine Theory</i> , <b>2021</b> , 165, 104426	4	2
120	Jump Phenomena in a Motor-Driven Quick-Return Mechanism that Excites the Base of a Vibrating Structure. <i>Lecture Notes in Mechanical Engineering</i> , <b>2021</b> , 39-49	0.4	
119	The Sommerfeld effect of second kind: passage through parametric instability in a rotor with non-circular shaft and anisotropic flexible supports. <i>Nonlinear Dynamics</i> , <b>2020</b> , 100, 3171-3197	5	10
118	Influence of active steering with adaptive control law on a metro rail vehicle wheel wear and dynamic performance. <i>Journal of Mechanical Science and Technology</i> , <b>2020</b> , 34, 1415-1428	1.6	
117	Sommerfeld Effect Characterization in Anisotropic Non-ideal Rotor System. <i>Lecture Notes in Mechanical Engineering</i> , <b>2020</b> , 51-61	0.4	
116	Order Tracking: Angular Domain Features Extraction Method for Condition Monitoring of Variable Speed. <i>Lecture Notes in Mechanical Engineering</i> , <b>2020</b> , 127-133	0.4	
115	Sommerfeld effect in a single-DOF system with base excitation from motor driven mechanism. <i>Mechanism and Machine Theory</i> , <b>2020</b> , 148, 103808	4	9

114	Adaptive Prognosis of Hybrid Dynamical System for Dynamic Degradation Patterns. <i>IEEE Transactions on Industrial Electronics</i> , <b>2020</b> , 67, 5717-5728	8.9	5
113	Influence of variable inertia flywheel and soft switching on a power hydraulic system. <i>SN Applied Sciences</i> , <b>2019</b> , 1, 1	1.8	4
112	A Recursive Wheel Wear and Vehicle Dynamic Performance Evolution Computational Model for Rail Vehicles with Tread Brakes. <i>Vehicles</i> , <b>2019</b> , 1, 88-114	1.5	2
111	Bond graph modeling of soft switching concept and its parameters optimization. <i>International Journal of Modelling and Simulation</i> , <b>2019</b> , 39, 223-233	1.5	3
110	Multi-step wear evolution simulation method for the prediction of rail wheel wear and vehicle dynamic performance. <i>Simulation</i> , <b>2019</b> , 95, 441-459	1.2	7
109	Dynamic Modelling of an Elephant Trunk Like Flexible Bionic Manipulator <b>2019</b> ,		2
108	On the Dynamic Response of Rigid Rotor Supported by Rolling-Element Bearing. <i>Lecture Notes in Mechanical Engineering</i> , <b>2019</b> , 649-658	0.4	1
107	Dynamic Modeling of Cooperative Planar Bionic Manipulator. <i>Lecture Notes in Mechanical Engineering</i> , <b>2019</b> , 839-849	0.4	1
106	Self-synchronization of Two Unbalanced DC Motor-Driven Rotors on a Common Movable Platform. <i>Lecture Notes in Mechanical Engineering</i> , <b>2019</b> , 207-217	0.4	1
105	Discussion on A novel approach to study effects of asymmetric stiffness on parametric instabilities of multi-rotor-system By Jain et al., Journal of Sound and Vibration 413(2018) 159-172. <i>Journal of Sound and Vibration</i> , <b>2019</b> , 442, 268-280	3.9	2
104	Sommerfeld effect at forward and backward critical speeds in a rigid rotor shaft system with anisotropic supports. <i>Journal of Sound and Vibration</i> , <b>2019</b> , 442, 330-349	3.9	18
103	. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , <b>2019</b> , 49, 1053-1072	7.3	29
102	Sommerfeld effect in an oscillator with a reciprocating mass. <i>Nonlinear Dynamics</i> , <b>2018</b> , 93, 1719-1739	5	19
101	Prediction of railway wheel wear and its influence on the vehicle dynamics in a specific operating sector of Indian railways network. <i>Wear</i> , <b>2018</b> , 406-407, 92-104	3.5	19
100	Optimal Adaptive Threshold and Mode Fault Detection for Model-Based Fault Diagnosis of Hybrid Dynamical Systems <b>2018</b> , 45-78		1
99	Integrated modeling and simulation of vehicle and human multi-body dynamics for comfort assessment in railway vehicles. <i>Journal of Mechanical Science and Technology</i> , <b>2018</b> , 32, 109-119	1.6	16
98	Sommerfeld effect in a two-disk rotor dynamic system at various unbalance conditions. <i>Meccanica</i> , <b>2018</b> , 53, 681-701	2.1	14
97	Development of a compliant legged quadruped robot. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , <b>2018</b> , 43, 1	1	2

96	Reduction of wind turbine power fluctuation by using priority flow divider valve in a hydraulic power transmission. <i>Mechanism and Machine Theory</i> , <b>2018</b> , 128, 234-253	4	12
95	Fault-tolerant control of a compliant legged quadruped robot for free swinging failure. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2018</b> , 232, 161-177	1	4
94	Fault accommodation in compliant quadruped robot through a moving appendage mechanism. <i>Mechanism and Machine Theory</i> , <b>2018</b> , 121, 228-244	4	18
93	Model-based multi-component adaptive prognosis for hybrid dynamical systems. <i>Control Engineering Practice</i> , <b>2018</b> , 72, 1-18	3.9	26
92	Adaptive Prognosis for a Multi-component Dynamical System of Unknown Degradation Modes. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 184-191	0.7	7
91	Parameter estimation of soft switch and influence of critical parameters on the performance of a valve controlled hydraulic drive system. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2018</b> , 377, 012033	0.4	
90	Sommerfeld effect in a gyroscopic overhung rotor-disk system. <i>Nonlinear Dynamics</i> , <b>2017</b> , 88, 1565-1585		16
89	Bond graph Modeling and Control of Compliant Legged Quadruped Robot <b>2017</b> , 497-546		
88	Model-Based Diagnosis and Prognosis of Hybrid Dynamical Systems with Dynamically Updated Parameters <b>2017</b> , 195-232		4
87	Rolling element bearing fault diagnosis under slow speed operation using wavelet de-noising. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2017</b> , 103, 77-86	4.6	77
86	Influence of locking and passive soft switching on hydraulic circuit efficiency. <i>Simulation</i> , <b>2017</b> , 93, 237-249		6
85	Ball bearing defect models: A study of simulated and experimental fault signatures. <i>Journal of Sound and Vibration</i> , <b>2017</b> , 400, 86-112	3.9	64
84	Control strategies for DC motors driving rotor dynamic systems through resonance. <i>Journal of Sound and Vibration</i> , <b>2017</b> , 411, 304-327	3.9	11
83	Energy saving of a hydrostatic drive system by incorporating soft switch. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , <b>2017</b> , 39, 1929-1945	2	9
82	Application of Semi-Hertzian Approach to Predict the Dynamic Behavior of Railway Vehicles Through a Wear Evolution Model. <i>Journal of Friction and Wear</i> , <b>2017</b> , 38, 437-443	0.9	8
81	Speed Control of 3-Phase Induction Motor in Presence of Sommerfeld Effect. <i>Mechanisms and Machine Science</i> , <b>2017</b> , 169-176	0.3	2
80	Rolling element bearing defect diagnosis under variable speed operation through angle synchronous averaging of wavelet de-noised estimate. <i>Mechanical Systems and Signal Processing</i> , <b>2016</b> , 72-73, 206-222	7.8	76
79	Dynamic Analysis of Steering Bogies. <i>Advances in Civil and Industrial Engineering Book Series</i> , <b>2016</b> , 524-579		2

78	Bond graph modeling and experimental verification of a novel scheme for fault diagnosis of rolling element bearings in special operating conditions. <i>Journal of Sound and Vibration</i> , <b>2016</b> , 377, 302-330	3.9	19
77	Effect of stress-softening on the ballooning motion of hyperelastic strings. <i>International Journal of Engineering Science</i> , <b>2015</b> , 96, 19-33	5.7	5
76	Control oriented model-based simulation and experimental studies on a compliant legged quadruped robot. <i>Robotics and Autonomous Systems</i> , <b>2015</b> , 72, 217-234	3.5	21
75	Sommerfeld effect characterization in rotors with non-ideal drive from ideal drive response and power balance. <i>Mechanism and Machine Theory</i> , <b>2015</b> , 91, 269-288	4	25
74	Friction Stir Welding: Scope and Recent Development. <i>Materials Forming, Machining and Tribology</i> , <b>2015</b> , 179-229	0.5	18
73	Control of compliant legged quadruped robots in the workspace. <i>Simulation</i> , <b>2015</b> , 91, 103-125	1.2	10
72	1F32 Forced steering control with estimated wheel wear(Vehicles-Rail/Wheel). <i>The Proceedings of International Symposium on Seed-up and Service Technology for Railway and Maglev Systems STECH</i> , <b>2015</b> , 2015, _1F32-1_- _1F32-8_		
71	Vehicle Mechatronic Systems <b>2013</b> , 437-575		
70	Rigid Body, Flexible Body, and Micro Electromechanical Systems <b>2013</b> , 281-433		
69	Modeling of Actuators, Sensors, and Electronic Circuits <b>2013</b> , 111-230		1
68	Bond Graph Modeling of Mechatronic Systems <b>2013</b> , 15-109		0
67	Intelligent Mechatronic Systems <b>2013</b> ,		41
66	Elements of Mechatronic Systems <b>2013</b> , 3-14		
65	Road Vehicle Driving Simulator <b>2013</b> , 909-933		
64	Modeling and Control of Space Robots <b>2013</b> , 703-768		
63	Telediagnosis of Mechatronic Systems <b>2013</b> , 869-908		0
62	Robust Overwhelming Control and Impedance Control <b>2013</b> , 683-702		
61	Physical Model-Based Control <b>2013</b> , 231-280		

60	Introduction to Robotic Manipulators <b>2013</b> , 619-682		
59	Intelligent Transportation Systems <b>2013</b> , 769-867		4
58	Model-Based Fault Diagnosis and Fault Tolerant Control <b>2013</b> , 577-617		1
57	Bond graph modeling of planar prismatic joints. <i>Mechanism and Machine Theory</i> , <b>2012</b> , 49, 2-20	4	21
56	Robust fault detection and isolation of hybrid systems with uncertain parameters. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2012</b> , 226, 1013-1028	14	14
55	Finite Element Modeling of Chip Formation in Orthogonal Machining <b>2012</b> , 101-144		13
54	Design and validation of a reconfiguration strategy for a redundantly actuated intelligent autonomous vehicle. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2012</b> , 226, 1060-1076	1	6
53	Force control in a parallel manipulator through virtual foundations. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2012</b> , 226, 1088-1106	1	10
52	Reconfiguration of four-legged walking robot for actuator faults. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2012</b> , 226, 11-26	1	7
51	Bond graph model-based evaluation of a sliding mode controller for a combined regenerative and antilock braking system. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2011</b> , 225, 918-934	1	33
50	A Finite Element Study of Chip Formation Process in Orthogonal Machining. <i>International Journal of Manufacturing, Materials, and Mechanical Engineering</i> , <b>2011</b> , 1, 19-45	0.5	3
49	Evaluation of antilock braking system with an integrated model of full vehicle system dynamics. <i>Simulation Modelling Practice and Theory</i> , <b>2011</b> , 19, 2131-2150	3.9	43
48	Bond Graph Modelling of a Solid Oxide Fuel Cell <b>2011</b> , 355-382		
47	Bond Graph Model-Based Fault Diagnosis <b>2011</b> , 227-265		1
46	Robust overwhelming control of a hydraulically driven three-degrees-of-freedom parallel manipulator through a simplified fast inverse model. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2010</b> , 224, 169-184	1	12
45	Prediction of the quality of pulsed metal inert gas welding using statistical parameters of arc signals in artificial neural network. <i>International Journal of Computer Integrated Manufacturing</i> , <b>2010</b> , 23, 453-465	4.3	17
44	Bond Graph Modeling of an Internally Damped Nonideal Flexible Spinning Shaft. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , <b>2010</b> , 132,	1.6	20
43	Reconfiguration of four legged walking robot for actuator faults <b>2010</b> ,		1

42	Determination of Optimal Pulse Metal Inert Gas Welding Parameters with a Neuro-GA Technique. <i>Materials and Manufacturing Processes</i> , <b>2010</b> , 25, 606-615	4.1	23
41	Constant Fuel Utilization Operation of a SOFC System: An Efficiency Viewpoint. <i>Journal of Fuel Cell Science and Technology</i> , <b>2010</b> , 7,		6
40	Sommerfeld effect in rotationally symmetric planar dynamical systems. <i>International Journal of Engineering Science</i> , <b>2010</b> , 48, 21-36	5.7	63
39	Stability of an internally damped non-ideal flexible spinning shaft. <i>International Journal of Non-Linear Mechanics</i> , <b>2010</b> , 45, 286-293	2.8	25
38	Development of a thermodynamically consistent kinetic model for reactions in the solid oxide fuel cell. <i>Computers and Chemical Engineering</i> , <b>2010</b> , 34, 866-877	4	8
37	Model based fault diagnosis, fault tolerant control and reconfiguration of hydraulic and thermo-fluid processes using analytical redundancy. <i>International Journal of Automation and Control</i> , <b>2009</b> , 3, 363	1.8	7
36	On the non-linear phenomena due to source loading in rotor/motor systems. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , <b>2009</b> , 223, 809-818 <sup>1,3</sup>		16
35	On the rationale behind constant fuel utilization control of solid oxide fuel cells. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2009</b> , 223, 229-252 <sup>1</sup>		6
34	Steady-state dynamics of a non-ideal rotor with internal damping and gyroscopic effects. <i>Nonlinear Dynamics</i> , <b>2009</b> , 56, 443-451	5	34
33	Joint strength prediction in a pulsed MIG welding process using hybrid neuro ant colony-optimized model. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2009</b> , 41, 694-705	3.2	8
32	Optimization of quality characteristics parameters in a pulsed metal inert gas welding process using grey-based Taguchi method. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2009</b> , 44, 1250-1260	3.2	40
31	A bond graph model-based evaluation of a control scheme to improve the dynamic performance of a solid oxide fuel cell. <i>Mechatronics</i> , <b>2009</b> , 19, 489-502	3	31
30	Modeling and analysis of preloaded liquid spring/damper shock absorbers. <i>Simulation Modelling Practice and Theory</i> , <b>2009</b> , 17, 309-325	3.9	27
29	Bond graph model of a vertical U-tube steam condenser coupled with a heat exchanger. <i>Simulation Modelling Practice and Theory</i> , <b>2009</b> , 17, 228-239	3.9	16
28	Reconfiguration of Directional Handling of an Autonomous Vehicle <b>2008</b> ,		9
27	Bond graph model of a solid oxide fuel cell with a C-field for mixture of two gas species. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2008</b> , 222, 247-259	1	9
26	Multiple fault disambiguations through parameter estimation: a bond graph model-based approach. <i>International Journal of Intelligent Systems Technologies and Applications</i> , <b>2008</b> , 5, 166	0.5	2
25	Neurowavelet packet analysis based on current signature for weld joint strength prediction in pulsed metal inert gas welding process. <i>Science and Technology of Welding and Joining</i> , <b>2008</b> , 13, 638-645 <sup>3,7</sup>		24

24	Sensor based weld bead geometry prediction in pulsed metal inert gas welding process through artificial neural networks. <i>International Journal of Knowledge-Based and Intelligent Engineering Systems</i> , <b>2008</b> , 12, 101-114	0.5	6
23	On the stability of Crandall gyropendulum. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2008</b> , 372, 238-243	2.3	17
22	Artificial neural network modeling of weld joint strength prediction of a pulsed metal inert gas welding process using arc signals. <i>Journal of Materials Processing Technology</i> , <b>2008</b> , 202, 464-474	5.3	97
21	Bicausal bond graphs for supervision: From fault detection and isolation to fault accommodation. <i>Journal of the Franklin Institute</i> , <b>2008</b> , 345, 1-28	4	39
20	A note on internal damping induced self-excited vibration in a rotor by considering source loading of a DC motor drive. <i>International Journal of Non-Linear Mechanics</i> , <b>2008</b> , 43, 1012-1017	2.8	12
19	Sensitivity bond graph approach to multiple fault isolation through parameter estimation. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , <b>2007</b> , 221, 577-587	1	25
18	Reconfiguration of an industrial steam generator using bond graph modelling. <i>International Journal of Modelling, Identification and Control</i> , <b>2007</b> , 2, 154	0.6	2
17	Radial basis function neural network model based prediction of weld plate distortion due to pulsed metal inert gas welding. <i>Science and Technology of Welding and Joining</i> , <b>2007</b> , 12, 725-731	3.7	20
16	Bond graph model based design of supervision algorithm for distributed fault tolerant control systems. <i>International Journal of Automation and Control</i> , <b>2007</b> , 1, 28	1.8	4
15	Software for Supervision System Design in Process Engineering Industry <b>2007</b> , 646-650		
14	An Investigation into the Physics Behind the Stabilizing Effects of Two-Phase Lubricants in Journal Bearings. <i>JVC/Journal of Vibration and Control</i> , <b>2006</b> , 12, 425-442	2	18
13	SOFTWARE FOR SUPERVISION SYSTEM DESIGN IN PROCESS ENGINEERING INDUSTRY. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2006</b> , 39, 646-650		5
12	Supervision of an industrial steam generator. Part I: Bond graph modelling. <i>Control Engineering Practice</i> , <b>2006</b> , 14, 71-83	3.9	74
11	Supervision of an industrial steam generator. Part II: Online implementation. <i>Control Engineering Practice</i> , <b>2006</b> , 14, 85-96	3.9	44
10	Some studies on rotors with polynomial type non-linear external and internal damping. <i>International Journal of Non-Linear Mechanics</i> , <b>2006</b> , 41, 1007-1015	2.8	17
9	Diagnostic bond graphs for online fault detection and isolation. <i>Simulation Modelling Practice and Theory</i> , <b>2006</b> , 14, 237-262	3.9	101
8	Model builder using functional and bond graph tools for FDI design. <i>Control Engineering Practice</i> , <b>2005</b> , 13, 875-891	3.9	55
7	Fault detection and isolation of smart actuators using bond graphs and external models. <i>Control Engineering Practice</i> , <b>2005</b> , 13, 159-175	3.9	59



6	Improvements to Single-Fault Isolation Using Estimated Parameters. <i>Simulation</i> , <b>2005</b> , 81, 827-845	1.2	19
5	Component-Based Modelling of Thermofluid Systems for Sensor Placement and Fault Detection. <i>Simulation</i> , <b>2004</b> , 80, 381-398	1.2	35
4	Harmonic oscillations of non-conservative, asymmetric, two-degree-of-freedom systems. <i>Journal of Sound and Vibration</i> , <b>2003</b> , 264, 973-980	3.9	18
3	Modelling of basic induction motors and source loading in rotor-motor systems with regenerative force field. <i>Simulation Modelling Practice and Theory</i> , <b>1999</b> , 7, 563-576		34
2	A Finite Element Study of Chip Formation Process in Orthogonal Machining 197-225		
1	Efficiency considerations for Sommerfeld effect attenuation. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 095440622199158	1.3	1