

Arun K Samantaray

List of Publications by Citations

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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	Diagnostic bond graphs for online fault detection and isolation. <i>Simulation Modelling Practice and Theory</i> , 2006 , 14, 237-262	3.9	101
130	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> , 2008 , 202, 464-474	5.3	97
129	Rolling element bearing fault diagnosis under slow speed operation using wavelet de-noising. <i>Measurement: Journal of the International Measurement Confederation</i> , 2017 , 103, 77-86	4.6	77
128	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> , 2016 , 72-73, 206-222	7.8	76
127	Supervision of an industrial steam generator. Part I: Bond graph modelling. <i>Control Engineering Practice</i> , 2006 , 14, 71-83	3.9	74
126	Ball bearing defect models: A study of simulated and experimental fault signatures. <i>Journal of Sound and Vibration</i> , 2017 , 400, 86-112	3.9	64
125	Sommerfeld effect in rotationally symmetric planar dynamical systems. <i>International Journal of Engineering Science</i> , 2010 , 48, 21-36	5.7	63
124	Fault detection and isolation of smart actuators using bond graphs and external models. <i>Control Engineering Practice</i> , 2005 , 13, 159-175	3.9	59
123	Model builder using functional and bond graph tools for FDI design. <i>Control Engineering Practice</i> , 2005 , 13, 875-891	3.9	55
122	Supervision of an industrial steam generator. Part II: Online implementation. <i>Control Engineering Practice</i> , 2006 , 14, 85-96	3.9	44
121	Evaluation of antilock braking system with an integrated model of full vehicle system dynamics. <i>Simulation Modelling Practice and Theory</i> , 2011 , 19, 2131-2150	3.9	43
120	Intelligent Mechatronic Systems 2013 ,		41
119	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> , 2009 , 44, 1250-1260	3.2	40
118	Bicausal bond graphs for supervision: From fault detection and isolation to fault accommodation. <i>Journal of the Franklin Institute</i> , 2008 , 345, 1-28	4	39
117	Component-Based Modelling of Thermofluid Systems for Sensor Placement and Fault Detection. <i>Simulation</i> , 2004 , 80, 381-398	1.2	35
116	Steady-state dynamics of a non-ideal rotor with internal damping and gyroscopic effects. <i>Nonlinear Dynamics</i> , 2009 , 56, 443-451	5	34
115	Modelling of basic induction motors and source loading in rotor/rotor systems with regenerative force field. <i>Simulation Modelling Practice and Theory</i> , 1999 , 7, 563-576		34

114	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> , 2011 , 225, 918-934	1	33
113	A bond graph model-based evaluation of a control scheme to improve the dynamic performance of a solid oxide fuel cell. <i>Mechatronics</i> , 2009 , 19, 489-502	3	31
112	. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2019 , 49, 1053-1072	7.3	29
111	Modeling and analysis of preloaded liquid spring/damper shock absorbers. <i>Simulation Modelling Practice and Theory</i> , 2009 , 17, 309-325	3.9	27
110	Model-based multi-component adaptive prognosis for hybrid dynamical systems. <i>Control Engineering Practice</i> , 2018 , 72, 1-18	3.9	26
109	Sommerfeld effect characterization in rotors with non-ideal drive from ideal drive response and power balance. <i>Mechanism and Machine Theory</i> , 2015 , 91, 269-288	4	25
108	Stability of an internally damped non-ideal flexible spinning shaft. <i>International Journal of Non-Linear Mechanics</i> , 2010 , 45, 286-293	2.8	25
107	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> , 2007 , 221, 577-587	1	25
106	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> , 2008 , 13, 638-645	3.7	24
105	Determination of Optimal Pulse Metal Inert Gas Welding Parameters with a Neuro-GA Technique. <i>Materials and Manufacturing Processes</i> , 2010 , 25, 606-615	4.1	23
104	Control oriented model-based simulation and experimental studies on a compliant legged quadruped robot. <i>Robotics and Autonomous Systems</i> , 2015 , 72, 217-234	3.5	21
103	Bond graph modeling of planar prismatic joints. <i>Mechanism and Machine Theory</i> , 2012 , 49, 2-20	4	21
102	Bond Graph Modeling of an Internally Damped Nonideal Flexible Spinning Shaft. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2010 , 132,	1.6	20
101	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> , 2007 , 12, 725-731	3.7	20
100	Sommerfeld effect in an oscillator with a reciprocating mass. <i>Nonlinear Dynamics</i> , 2018 , 93, 1719-1739	5	19
99	Prediction of railway wheel wear and its influence on the vehicle dynamics in a specific operating sector of Indian railways network. <i>Wear</i> , 2018 , 406-407, 92-104	3.5	19
98	Improvements to Single-Fault Isolation Using Estimated Parameters. <i>Simulation</i> , 2005 , 81, 827-845	1.2	19
97	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> , 2016 , 377, 302-330	3.9	19

96	Friction Stir Welding: Scope and Recent Development. <i>Materials Forming, Machining and Tribology</i> , 2015 , 179-229	0.5	18
95	An Investigation into the Physics Behind the Stabilizing Effects of Two-Phase Lubricants in Journal Bearings. <i>JVC/Journal of Vibration and Control</i> , 2006 , 12, 425-442	2	18
94	Harmonic oscillations of non-conservative, asymmetric, two-degree-of-freedom systems. <i>Journal of Sound and Vibration</i> , 2003 , 264, 973-980	3.9	18
93	Sommerfeld effect at forward and backward critical speeds in a rigid rotor shaft system with anisotropic supports. <i>Journal of Sound and Vibration</i> , 2019 , 442, 330-349	3.9	18
92	Fault accommodation in compliant quadruped robot through a moving appendage mechanism. <i>Mechanism and Machine Theory</i> , 2018 , 121, 228-244	4	18
91	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> , 2010 , 23, 453-465	4.3	17
90	On the stability of Crandall gyropendulum. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008 , 372, 238-243	2.3	17
89	Some studies on rotors with polynomial type non-linear external and internal damping. <i>International Journal of Non-Linear Mechanics</i> , 2006 , 41, 1007-1015	2.8	17
88	Sommerfeld effect in a gyroscopic overhung rotor-disk system. <i>Nonlinear Dynamics</i> , 2017 , 88, 1565-1585		16
87	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> , 2018 , 32, 109-119	1.6	16
86	On the non-linear phenomena due to source loading in rotor systems. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2009 , 223, 809-818	1.3	16
85	Bond graph model of a vertical U-tube steam condenser coupled with a heat exchanger. <i>Simulation Modelling Practice and Theory</i> , 2009 , 17, 228-239	3.9	16
84	Sommerfeld effect in a two-disk rotor dynamic system at various unbalance conditions. <i>Meccanica</i> , 2018 , 53, 681-701	2.1	14
83	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> , 2012 , 226, 1013-1028		14
82	Finite Element Modeling of Chip Formation in Orthogonal Machining 2012 , 101-144		13
81	Reduction of wind turbine power fluctuation by using priority flow divider valve in a hydraulic power transmission. <i>Mechanism and Machine Theory</i> , 2018 , 128, 234-253	4	12
80	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> , 2010 , 224, 169-184	1	12
79	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> , 2008 , 43, 1012-1017	2.8	12

78	Control strategies for DC motors driving rotor dynamic systems through resonance. <i>Journal of Sound and Vibration</i> , 2017 , 411, 304-327	3.9	11
77	Control of compliant legged quadruped robots in the workspace. <i>Simulation</i> , 2015 , 91, 103-125	1.2	10
76	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> , 2020 , 100, 3171-3197	5	10
75	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> , 2012 , 226, 1088-1106	1	10
74	Energy saving of a hydrostatic drive system by incorporating soft switch. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2017 , 39, 1929-1945	2	9
73	Reconfiguration of Directional Handling of an Autonomous Vehicle 2008 ,		9
72	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> , 2008 , 222, 247-259	1	9
71	Sommerfeld effect in a single-DOF system with base excitation from motor driven mechanism. <i>Mechanism and Machine Theory</i> , 2020 , 148, 103808	4	9
70	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> , 2017 , 38, 437-443	0.9	8
69	Joint strength prediction in a pulsed MIG welding process using hybrid neuro ant colony-optimized model. <i>International Journal of Advanced Manufacturing Technology</i> , 2009 , 41, 694-705	3.2	8
68	Development of a thermodynamically consistent kinetic model for reactions in the solid oxide fuel cell. <i>Computers and Chemical Engineering</i> , 2010 , 34, 866-877	4	8
67	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> , 2021 , 156, 104175	4	8
66	Multi-step wear evolution simulation method for the prediction of rail wheel wear and vehicle dynamic performance. <i>Simulation</i> , 2019 , 95, 441-459	1.2	7
65	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> , 2009 , 3, 363	1.8	7
64	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> , 2012 , 226, 11-26	1	7
63	Adaptive Prognosis for a Multi-component Dynamical System of Unknown Degradation Modes. <i>IFAC-PapersOnLine</i> , 2018 , 51, 184-191	0.7	7
62	Influence of locking and passive soft switching on hydraulic circuit efficiency. <i>Simulation</i> , 2017 , 93, 237-249		6
61	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> , 2009 , 223, 229-252 ¹		6

60	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> , 2012 , 226, 1060-1076	1	6
59	Constant Fuel Utilization Operation of a SOFC System: An Efficiency Viewpoint. <i>Journal of Fuel Cell Science and Technology</i> , 2010 , 7,		6
58	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> , 2008 , 12, 101-114	0.5	6
57	Effect of stress-softening on the ballooning motion of hyperelastic strings. <i>International Journal of Engineering Science</i> , 2015 , 96, 19-33	5.7	5
56	SOFTWARE FOR SUPERVISION SYSTEM DESIGN IN PROCESS ENGINEERING INDUSTRY. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2006 , 39, 646-650		5
55	Adaptive Prognosis of Hybrid Dynamical System for Dynamic Degradation Patterns. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 5717-5728	8.9	5
54	Model-Based Diagnosis and Prognosis of Hybrid Dynamical Systems with Dynamically Updated Parameters 2017 , 195-232		4
53	Influence of variable inertia flywheel and soft switching on a power hydraulic system. <i>SN Applied Sciences</i> , 2019 , 1, 1	1.8	4
52	Bond graph model based design of supervision algorithm for distributed fault tolerant control systems. <i>International Journal of Automation and Control</i> , 2007 , 1, 28	1.8	4
51	Resonant capture and Sommerfeld effect due to torsional vibrations in a double Cardan joint driveline. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2021 , 97, 105728	3.7	4
50	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> , 2018 , 232, 161-177	1	4
49	Intelligent Transportation Systems 2013 , 769-867		4
48	Bond graph modeling of soft switching concept and its parameters optimization. <i>International Journal of Modelling and Simulation</i> , 2019 , 39, 223-233	1.5	3
47	A Finite Element Study of Chip Formation Process in Orthogonal Machining. <i>International Journal of Manufacturing, Materials, and Mechanical Engineering</i> , 2011 , 1, 19-45	0.5	3
46	Prognosis of Dynamical System Components with Varying Degradation Patterns using model-data fusion. <i>Reliability Engineering and System Safety</i> , 2021 , 213, 107683	6.3	3
45	A Recursive Wheel Wear and Vehicle Dynamic Performance Evolution Computational Model for Rail Vehicles with Tread Brakes. <i>Vehicles</i> , 2019 , 1, 88-114	1.5	2
44	Development of a compliant legged quadruped robot. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2018 , 43, 1	1	2
43	Multiple fault disambiguations through parameter estimation: a bond graph model-based approach. <i>International Journal of Intelligent Systems Technologies and Applications</i> , 2008 , 5, 166	0.5	2

42	Reconfiguration of an industrial steam generator using bond graph modelling. <i>International Journal of Modelling, Identification and Control</i> , 2007 , 2, 154	0.6	2
41	Dynamic Modelling of an Elephant Trunk Like Flexible Bionic Manipulator 2019 ,		2
40	Dynamic Analysis of Steering Bogies. <i>Advances in Civil and Industrial Engineering Book Series</i> , 2016 , 524-579		2
39	Speed Control of 3-Phase Induction Motor in Presence of Sommerfeld Effect. <i>Mechanisms and Machine Science</i> , 2017 , 169-176	0.3	2
38	Dynamics of a rotor shaft driven by a non-ideal source through a universal joint. <i>Journal of Sound and Vibration</i> , 2021 , 499, 115992	3.9	2
37	Discussion on a novel approach to study effects of asymmetric stiffness on parametric instabilities of multi-rotor-system by Jain et al., <i>Journal of Sound and Vibration</i> 413(2018) 159-172. <i>Journal of Sound and Vibration</i> , 2019 , 442, 268-280	3.9	2
36	Workspace analysis and design of large-scale cable-driven printing robot considering cable mass and mobile platform orientation. <i>Mechanism and Machine Theory</i> , 2021 , 165, 104426	4	2
35	Fractional-order Bouc-wen hysteresis model for pneumatically actuated continuum manipulator. <i>Mechanism and Machine Theory</i> , 2022 , 173, 104841	4	2
34	Optimal Adaptive Threshold and Mode Fault Detection for Model-Based Fault Diagnosis of Hybrid Dynamical Systems 2018 , 45-78		1
33	Modeling of Actuators, Sensors, and Electronic Circuits 2013 , 111-230		1
32	Reconfiguration of four legged walking robot for actuator faults 2010 ,		1
31	On the Dynamic Response of Rigid Rotor Supported by Rolling-Element Bearing. <i>Lecture Notes in Mechanical Engineering</i> , 2019 , 649-658	0.4	1
30	Bond Graph Model-Based Fault Diagnosis 2011 , 227-265		1
29	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
28	Dynamic Modeling of Cooperative Planar Bionic Manipulator. <i>Lecture Notes in Mechanical Engineering</i> , 2019 , 839-849	0.4	1
27	Self-synchronization of Two Unbalanced DC Motor-Driven Rotors on a Common Movable Platform. <i>Lecture Notes in Mechanical Engineering</i> , 2019 , 207-217	0.4	1
26	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> , 2021 , 235, 117-144	1	1
25	Jacobian-Based Inverse Kinematics Analysis of a Pneumatic Actuated Continuum Manipulator. <i>Lecture Notes in Mechanical Engineering</i> , 2021 , 3-13	0.4	1

24	Model-Based Fault Diagnosis and Fault Tolerant Control 2013 , 577-617		1
23	Bond Graph Modeling of Mechatronic Systems 2013 , 15-109		0
22	Telediagnosis of Mechatronic Systems 2013 , 869-908		0
21	Joint-Space Kinematic Control of a Bionic Continuum Manipulator in Real-Time by Using Hybrid Approach. <i>IEEE Access</i> , 2022 , 10, 47031-47050	3.5	0
20	Bond graph modeling of a spatial multi-section soft bionic robot. <i>Mechanism and Machine Theory</i> , 2022 , 174, 104902	4	0
19	Bond graph Modeling and Control of Compliant Legged Quadruped Robot 2017 , 497-546		
18	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> , 2020 , 34, 1415-1428	1.6	
17	Vehicle Mechatronic Systems 2013 , 437-575		
16	Rigid Body, Flexible Body, and Micro Electromechanical Systems 2013 , 281-433		
15	A Finite Element Study of Chip Formation Process in Orthogonal Machining 197-225		
14	Software for Supervision System Design in Process Engineering Industry 2007 , 646-650		
13	Sommerfeld Effect Characterization in Anisotropic Non-ideal Rotor System. <i>Lecture Notes in Mechanical Engineering</i> , 2020 , 51-61	0.4	
12	Order Tracking: Angular Domain Features Extraction Method for Condition Monitoring of Variable Speed. <i>Lecture Notes in Mechanical Engineering</i> , 2020 , 127-133	0.4	
11	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> , 2015 , 2015, _1F32-1_-_1F32-8_		
10	Bond Graph Modelling of a Solid Oxide Fuel Cell 2011 , 355-382		
9	Elements of Mechatronic Systems 2013 , 3-14		
8	Road Vehicle Driving Simulator 2013 , 909-933		
7	Modeling and Control of Space Robots 2013 , 703-768		

6 Robust Overwhelming Control and Impedance Control **2013**, 683-702

5 Physical Model-Based Control **2013**, 231-280

4 Introduction to Robotic Manipulators **2013**, 619-682

3 Parameter estimation of soft switch and influence of critical parameters on the performance of a valve controlled hydraulic drive system. *IOP Conference Series: Materials Science and Engineering*, **2018**, 377, 012033 0.4

2 Jump Phenomena in a Motor-Driven Quick-Return Mechanism that Excites the Base of a Vibrating Structure. *Lecture Notes in Mechanical Engineering*, **2021**, 39-49 0.4

1 Three Kinds of Sommerfeld Effect in Rotor Dynamics. *Mechanisms and Machine Science*, **2022**, 85-125 0.3