Asok Ray

List of Publications by Citations

283 papers	**4,219** citations	**31** h-index	**54** g-index
339 ext. papers	**5,343** ext. citations	**3.1** avg, IF	**5.82** L-index

#	Paper	IF	Citations
283	Integrated Communication and Control Systems: Part I—Analysis. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1988**, 110, 367-373	1.6	289
282	Symbolic dynamic analysis of complex systems for anomaly detection. *Signal Processing*, **2004**, 84, 1115-1130	4.4	267
281	An observer-based compensator for distributed delays. *Automatica*, **1990**, 26, 903-908	5.7	247
280	Symbolic time series analysis via wavelet-based partitioning. *Signal Processing*, **2006**, 86, 3309-3320	4.4	176
279	Integrated Communication and Control Systems: Part II—Design Considerations. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1988**, 110, 374-381	1.6	124
278	Target Detection and Classification Using Seismic and PIR Sensors. *IEEE Sensors Journal*, **2012**, 12, 1709-1718	4.7	92
277	Symbolic time series analysis of ultrasonic data for early detection of fatigue damage. *Mechanical Systems and Signal Processing*, **2007**, 21, 866-884	7.8	91
276	Output feedback control under randomly varying distributed delays. *Journal of Guidance, Control, and Dynamics*, **1994**, 17, 701-711	2.1	91
275	Experimental verification of a delay compensation algorithm for integrated communication and control systems. *International Journal of Control*, **1994**, 59, 1357-1372	1.5	82
274	Review and comparative evaluation of symbolic dynamic filtering for detection of anomaly patterns. *Signal, Image and Video Processing*, **2009**, 3, 101-114	1.6	73
273	State splitting and merging in probabilistic finite state automata for signal representation and analysis. *Signal Processing*, **2014**, 104, 105-119	4.4	67
272	Space partitioning via Hilbert transform for symbolic time series analysis. *Applied Physics Letters*, **2008**, 92, 084107	3.4	55
271	A Stochastic Regulator for Integrated Communication and Control Systems: Part I—Formulation of Control Law. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1991**, 113, 604-611	1.6	54
270	Symbolic time series analysis for anomaly detection: A comparative evaluation. *Signal Processing*, **2005**, 85, 1859-1868	4.4	52
269	Fatigue crack growth under variable-amplitude loading: Part I – Model formulation in state-space setting. *Applied Mathematical Modelling*, **2001**, 25, 979-994	4.5	52
268	Damage-Mitigating Control of Mechanical Systems: Part I—Conceptual Development and Model Formulation. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1994**, 116, 437-447	1.6	51
267	Fatigue crack growth under variable-amplitude loading: Part II – Code development and model validation. *Applied Mathematical Modelling*, **2001**, 25, 995-1013	4.5	48

266	Wavelet-based feature extraction using probabilistic finite state automata for pattern classification. *Pattern Recognition*, **2011**, 44, 1343-1356	7.7	44
265	Real-time fatigue life estimation in mechanical structures. *Measurement Science and Technology*, **2007**, 18, 1947-1957	2	42
264	Performance comparison of feature extraction algorithms for target detection and classification. *Pattern Recognition Letters*, **2013**, 34, 2126-2134	4.7	40
263	. *IEEE Journal of Oceanic Engineering*, **2011**, 36, 219-230	3.3	39
262	On the discriminability of keystroke feature vectors used in fixed text keystroke authentication. *Pattern Recognition Letters*, **2011**, 32, 1070-1080	4.7	39
261	Dynamic data-driven prediction of instability in a swirl-stabilized combustor. *International Journal of Spray and Combustion Dynamics*, **2016**, 8, 235-253	1.3	37
260	Robust Optimal Control of Nuclear Reactors and Power Plants. *Nuclear Technology*, **1992**, 98, 137-148	1.4	37
259	Data-Driven Fault Detection in Aircraft Engines With Noisy Sensor Measurements. *Journal of Engineering for Gas Turbines and Power*, **2011**, 133,	1.7	35
258	Performance Evaluation of Medium Access Control Protocols for Distributed Digital Avionics. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1987**, 109, 370-377	1.6	35
257	Information Fusion of Passive Sensors for Detection of Moving Targets in Dynamic Environments. *IEEE Transactions on Cybernetics*, **2017**, 47, 93-104	10.2	34
256	A language measure for performance evaluation of discrete-event supervisory control systems. *Applied Mathematical Modelling*, **2004**, 28, 817-833	4.5	33
255	Lean Blow-Out Prediction in Gas Turbine Combustors Using Symbolic Time Series Analysis. *Journal of Propulsion and Power*, **2013**, 29, 950-960	1.8	32
254	Robust feedback control of combustion instability with modeling uncertainty. *Combustion and Flame*, **2000**, 120, 91-106	5.3	32
253	Life-extending control of fossil fuel power plants. *Automatica*, **1997**, 33, 1101-1118	5.7	31
252	A Redundancy Management Procedure for Fault Detection and Isolation. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1986**, 108, 248-254	1.6	29
251	Dynamic modelling of power plant turbines for controller design. *Applied Mathematical Modelling*, **1980**, 4, 109-112	4.5	28
250	Detection and estimation of demagnetization faults in permanent magnet synchronous motors. *Electric Power Systems Research*, **2013**, 96, 225-236	3.5	27
249	Anomaly Detection in Nuclear Power Plants via Symbolic Dynamic Filtering. *IEEE Transactions on Nuclear Science*, **2011**, 58, 277-288	1.7	26

248	Void fraction measurement in two-phase flow processes via symbolic dynamic filtering of ultrasonic signals. *Measurement Science and Technology*, **2009**, 20, 023001	2	25
247	Pattern identification in dynamical systems via symbolic time series analysis. *Pattern Recognition*, **2007**, 40, 2897-2907	7.7	25
246	DISTRIBUTED DATA COMMUNICATION NETWORKS FOR REAL-TIME PROCESS CONTROL.This work was supported in part by National Science Foundation under Research Grant No. DMC-8707648.. *Chemical Engineering Communications*, **1988**, 65, 139-154	2.2	25
245	A nonlinear stochastic model of fatigue crack dynamics. *Probabilistic Engineering Mechanics*, **1997**, 12, 33-40	2.6	24
244	A State-Space Model of Fatigue Crack Growth. *International Journal of Fracture*, **1998**, 90, 235-249	2.3	24
243	Language-measure-theoretic optimal control of probabilistic finite-state systems. *International Journal of Control*, **2007**, 80, 1271-1290	1.5	24
242	A stochastic model of fatigue crack propagation under variable-amplitude loading. *Engineering Fracture Mechanics*, **1999**, 62, 477-493	4.2	23
241	Unconstrained optimal control of regular languages. *Automatica*, **2004**, 40, 639-646	5.7	22
240	Signed real measure of regular languages for discrete-event automata. *International Journal of Control*, **2003**, 76, 1800-1808	1.5	22
239	Fuzzy Damage Mitigating Control of Mechanical Structures. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1998**, 120, 249-256	1.6	22
238	Modelling of power plant dynamics and uncertainties for robust control synthesis. *Applied Mathematical Modelling*, **1996**, 20, 501-512	4.5	22
237	Anomaly Detection in Aircraft Gas Turbine Engines. *Journal of Aerospace Computing, Information, and Communication*, **2006**, 3, 44-51		21
236	Wide-range robust control of combustion instability. *Combustion and Flame*, **2002**, 128, 242-258	5.3	21
235	State-space supervisory control of reconfigurable discrete event systems. *International Journal of Control*, **1996**, 63, 767-797	1.5	21
234	Statistical-mechanics-inspired optimization of sensor field configuration for detection of mobile targets. *IEEE Transactions on Systems, Man, and Cybernetics*, **2011**, 41, 783-91		20
233	Damage-mitigating control of a reusable rocket engine. *Journal of Propulsion and Power*, **1994**, 10, 225-234	3.8	20
232	Navigation of autonomous vehicles for oil spill cleaning in dynamic and uncertain environments.A preliminary version of this paper was presented by X. Jin and A. Ray as Coverage Control of Autonomous Vehicles for Oil Spill Cleaning in Dynamic and Uncertain EnvironmentsProceedings of the American Control Conference, Washington, DC, June 2013, pp. 26002605.View all notes.	1.5	19
231	Statistical Mechanics of Complex Systems for Pattern Identification. *Journal of Statistical Physics*, **2009**, 134, 337-364	1.5	19

230	Structural transformations of probabilistic finite state machines. *International Journal of Control*, **2008**, 81, 820-835	1.5	19
229	State-space modeling of fatigue crack growth in ductile alloys. *Engineering Fracture Mechanics*, **2000**, 66, 129-151	4.2	19
228	Dynamic data-driven and model-based recursive analysis for estimation of battery state-of-charge. *Applied Energy*, **2016**, 184, 266-275	10.7	18
227	Optimization of symbolic feature extraction for pattern classification. *Signal Processing*, **2012**, 92, 625-635	4.4	18
226	Multi-sensor information fusion for fault detection in aircraft gas turbine engines. *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, **2013**, 227, 1988-2001	0.9	18
225	Stochastic optimal control under randomly varying distributed delays. *International Journal of Control*, **1997**, 68, 1179-1202	1.5	18
224	Estimation of slowly varying parameters in nonlinear systems via symbolic dynamic filtering. *Signal Processing*, **2008**, 88, 339-348	4.4	18
223	Hybrid life-extending control of mechanical systems: experimental validation of the concept. *Automatica*, **2000**, 36, 23-36	5.7	18
222	Fuzzy wide-range control of fossil power plants for life extension and robust performance. *Automatica*, **2000**, 36, 69-82	5.7	18
221	Symbolic dynamic filtering and language measure for behavior identification of mobile robots. *IEEE Transactions on Systems, Man, and Cybernetics*, **2012**, 42, 647-59		17
220	Integrated Robust and Resilient Control of Nuclear Power Plants for Operational Safety and High Performance. *IEEE Transactions on Nuclear Science*, **2010**, 57, 807-817	1.7	17
219	Robust Multivariable Control of Rotorcraft in Forward Flight. *Journal of the American Helicopter Society*, **1997**, 42, 149-160	1.2	17
218	Optimal supervisory control of finite state automata. *International Journal of Control*, **2004**, 77, 1083-1100	1.5	17
217	Damage-Mitigating Control of Mechanical Systems: Part II—Formulation of an Optimal Policy and Simulation. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1994**, 116, 448-455	1.6	17
216	Dynamic Data Driven Sensor Array Fusion for Target Detection and Classification. *Procedia Computer Science*, **2013**, 18, 2046-2055	1.6	16
215	Dynamic Data-Driven Prediction of Lean Blowout in a Swirl-Stabilized Combustor. *International Journal of Spray and Combustion Dynamics*, **2015**, 7, 209-241	1.3	16
214	Adaptive pattern classification for symbolic dynamic systems. *Signal Processing*, **2013**, 93, 252-260	4.4	16
213	Identification of the battery state-of-health parameter from input–output pairs of time series data. *Journal of Power Sources*, **2015**, 285, 235-246	8.9	15

212	Real-time estimation of lead-acid battery parameters: A dynamic data-driven approach. *Journal of Power Sources*, **2014**, 268, 758-764	8.9	15
211	Sensor Fusion for Fault Detection and Classification in Distributed Physical Processes. *Frontiers in Robotics and AI*, **2014**, 1,	2.8	15
210	Generalization of Hilbert transform for symbolic analysis of noisy signals. *Signal Processing*, **2009**, 89, 1245-1251	4.4	15
209	Damage-Mitigating Control of a Reusable Rocket Engine: Part I−Life Prediction of the Main Thrust Chamber Wall. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1996**, 118, 401-408	1.6	15
208	Early Detection of Thermoacoustic Instabilities Using Hidden Markov Models. *Combustion Science and Technology*, **2019**, 191, 1309-1336	1.5	15
207	Early detection of stator voltage imbalance in three-phase induction motors. *Electric Power Systems Research*, **2009**, 79, 239-245	3.5	14
206	Stochastic Measure of Fatigue Crack Damage for Health Monitoring of Ductile Alloy Structures. *Structural Health Monitoring*, **2004**, 3, 245-263	4.4	14
205	Dynamic modelling of once-through subcritical steam generator for solar applications11This work was done while the author was at Carnegie-Mellon University, Pittsburgh, PA, USA. *Applied Mathematical Modelling*, **1980**, 4, 417-423	4.5	14
204	Dynamic modeling and simulation of a relief valve. *Simulation*, **1978**, 31, 167-172	1.2	14
203	Statistical pattern analysis of ultrasonic signals for fatigue damage detection in mechanical structures. *NDT and E International*, **2008**, 41, 491-500	4.1	13
202	A Stochastic Regulator for Integrated Communication and Control Systems: Part II−Numerical Analysis and Simulation. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1991**, 113, 612-619	1.6	13
201	Classification of fatigue crack damage in polycrystalline alloy structures using convolutional neural networks. *Engineering Failure Analysis*, **2021**, 119, 104908	3.2	13
200	Symbolic analysis-based reduced order Markov modeling of time series data. *Signal Processing*, **2018**, 149, 68-81	4.4	12
199	An inner product space on irreducible and synchronizable probabilistic finite state automata. *Mathematics of Control, Signals, and Systems*, **2012**, 23, 281-310	1.3	12
198	Damage-Mitigating Control of a Reusable Rocket Engine: Part II−Formulation of an Optimal Policy. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1996**, 118, 409-415	1.6	12
197	Technical Note: Robust Multivariable Control of Rotorcraft in Forward Flight: Impact of Bandwidth on Fatigue Life. *Journal of the American Helicopter Society*, **1998**, 43, 195-201	1.2	12
196	Compensatability and optimal compensation under randomly varying distributed delays. *International Journal of Control*, **1999**, 72, 826-832	1.5	12
195	Observability under recurrent loss of data. *Journal of Guidance, Control, and Dynamics*, **1992**, 15, 284-287	2.1	12

194	Sequential Testing for Fault Detection in Multiply-Redundant Systems. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1989**, 111, 329-332	1.6	12
193	Nonlinear dynamic model of a solar steam generator. *Solar Energy*, **1981**, 26, 297-306	6.8	12
192	Information-Theoretic Performance Analysis of Sensor Networks via Markov Modeling of Time Series Data. *IEEE Transactions on Cybernetics*, **2018**, 48, 1898-1909	10.2	11
191	Symbolic Dynamic Analysis of Transient Time Series for Fault Detection in Gas Turbine Engines. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2013**, 135,	1.6	11
190	Stochastic modeling of fatigue crack propagation. *Applied Mathematical Modelling*, **1998**, 22, 197-204	4.5	11
189	Analytic Redundancy for On-Line Fault Diagnosis in a Nuclear Reactor. *Journal of Energy*, **1983**, 7, 367-373		11
188	Digital Control of Power Transients in a Nuclear Reactor. *IEEE Transactions on Nuclear Science*, **1984**, 31, 701-705	1.7	11
187	Topology optimisation for energy management in underwater sensor networks. *International Journal of Control*, **2015**, 88, 1775-1788	1.5	10
186	Dynamic data-driven identification of battery state-of-charge via symbolic analysis of input–output pairs. *Applied Energy*, **2015**, 155, 778-790	10.7	10
185	Underwater mine detection using symbolic pattern analysis of sidescan sonar images **2009**,		10
184	Analytic signal space partitioning and symbolic dynamic filtering for degradation monitoring of electric motors. *Signal, Image and Video Processing*, **2010**, 4, 399-403	1.6	10
183	Pattern identification using lattice spin systems: A thermodynamic formalism. *Applied Physics Letters*, **2007**, 91, 194105	3.4	10
182	Robust Damage-Mitigating Control of Mechanical Systems: Experimental Validation on a Test Apparatus. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1999**, 121, 377-385	1.6	10
181	. *IEEE Transactions on Intelligent Transportation Systems*, **2015**, 16, 2424-2434	6.1	9
180	Context-aware Dynamic Data-driven Pattern Classification. *Procedia Computer Science*, **2014**, 29, 1324-1333		9
179	Distributed decision propagation in mobile-agent proximity networksView all notes. *International Journal of Control*, **2013**, 86, 1118-1130	1.5	9
178	**2011**,		9
177	Symbolic time series analysis of ultrasonic signals for fatigue damage monitoring in polycrystalline alloys. *Measurement Science and Technology*, **2006**, 17, 1963-1973	2	9

176	Real-time activity recognition from seismic signature via multi-scale symbolic time series analysis (MSTSA) **2015**,		8
175	Real-time combustion state identification via image processing: A dynamic data-driven approach **2016**,		8
174	Path planning in GPS-denied environments via collective intelligence of distributed sensor networks. *International Journal of Control*, **2016**, 89, 984-999	1.5	8
173	Dynamic Data-Driven Design of Lean Premixed Combustors for Thermoacoustically Stable Operations. *Journal of Mechanical Design, Transactions of the ASME*, **2017**, 139,	3	8
172	Stochastic Modeling of Fatigue Crack Damage for Risk Analysis and Remaining Life Prediction. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1999**, 121, 386-393	1.6	8
171	Robust Wide-Range Control of Nuclear Reactors by Using the Feedforward-Feedback Concept. *Nuclear Science and Engineering*, **1994**, 117, 177-185	1.2	8
170	**2015**,		7
169	Investigation of Melt Pool Geometry Control in Additive Manufacturing Using Hybrid Modeling. *Metals*, **2020**, 10, 683	2.3	7
168	Unsupervised Symbolization of Signal Time Series for Extraction of the Embedded Information. *Entropy*, **2017**, 19, 148	2.8	7
167	Symbolic dynamic analysis of surface deformation during fatigue crack initiation. *Measurement Science and Technology*, **2010**, 21, 043003	2	7
166	Adaptive Sensor Activity Scheduling in Distributed Sensor Networks: A Statistical Mechanics Approach. *International Journal of Distributed Sensor Networks*, **2009**, 5, 242-261	1.7	7
165	Symbolic dynamic filtering of seismic sensors for target detection and classification **2011**,		7
164	a robot path planning algorithm based on renormalised measure of probabilistic regular languages. *International Journal of Control*, **2009**, 82, 849-867	1.5	7
163	Anomaly detection in flexible mechanical couplings via symbolic time series analysis. *Journal of Sound and Vibration*, **2008**, 311, 608-622	3.9	7
162	On-line identification of language measure parameters for discrete-event supervisory control. *Applied Mathematical Modelling*, **2005**, 29, 597-613	4.5	7
161	Nonlinear Control of a Reusable Rocket Engine for Life Extension. *Journal of Propulsion and Power*, **2001**, 17, 998-1004	1.8	7
160	An adaptive real-time intelligent seam tracking system. *Journal of Manufacturing Systems*, **1987**, 6, 241-245		7
159	Symbolic Time Series Analysis for Anomaly Detection in Measure-Invariant Ergodic Systems. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2020**, 142,	1.6	7

158	Neural Network-Based Learning from Demonstration of an Autonomous Ground Robot. *Machines*, **2019**, 7, 24	2.9	6
157	Symbolization of dynamic data-driven systems for signal representation. *Signal, Image and Video Processing*, **2016**, 10, 1535-1542	1.6	6
156	Ground characterization and roof mapping: Online sensor signal-based change detection. *International Journal of Mining Science and Technology*, **2015**, 25, 905-913	7.1	6
155	An information-theoretic measure for anomaly detection in complex dynamical systems. *Mechanical Systems and Signal Processing*, **2009**, 23, 358-371	7.8	6
154	Information fusion for object & situation assessment in sensor networks **2011**,		6
153	Online recursive estimation of remaining life using ultrasonic measurements. *Structural Health Monitoring*, **2012**, 11, 413-421	4.4	6
152	Hierarchical control of aircraft propulsion systems: Discrete event supervisor approach. *Control Engineering Practice*, **2007**, 15, 149-162	3.9	6
151	Optimal control of robot behaviour using language measure. *International Journal of Vehicle Autonomous Systems*, **2004**, 2, 147	0.4	6
150	Hidden Markov Modeling-Based Decision-Making Using Short-Length Sensor Time Series. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2019**, 141,	1.6	6
149	Detection and classification of lean blow-out and thermoacoustic instability in turbulent combustors. *Applied Thermal Engineering*, **2020**, 180, 115808	5.8	6
148	State-Space Representations of Deep Neural Networks. *Neural Computation*, **2019**, 31, 538-554	2.9	6
147	Alphabet size selection for symbolization of dynamic data-driven systems: An information-theoretic approach **2015**,		5
146	Application of Composite Indices for Improving Joint Detection Capabilities of Instrumented Roof Bolt Drills in Underground Mining and Construction. *Rock Mechanics and Rock Engineering*, **2018**, 51, 849-860	5.7	5
145	Vector space formulation of probabilistic finite state automata. *Journal of Computer and System Sciences*, **2012**, 78, 1127-1141	1	5
144	Learning context-aware measurement models **2015**,		5
143	Early detection of lean blow out (LBO) via generalized D-Markov machine construction **2014**,		5
142	Anomaly detection in flight recorder data: A dynamic data-driven approach **2013**,		5
141	Classification of Two-Phase Flow Patterns by Ultrasonic Sensing. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2013**, 135,	1.6	5

140	Asynchronous data-driven classification of weapon systems. *Measurement Science and Technology*, **2009**, 20, 123001	2	5
139	Real-time adaptation of decision thresholds in sensor networks for detection of moving targets. *Automatica*, **2011**, 47, 185-191	5.7	5
138	Symbolic dynamic filtering for image analysis: theory and experimental validation. *Signal, Image and Video Processing*, **2010**, 4, 319-329	1.6	5
137	Modelling and system identification of an experimental apparatus for anomaly detection in mechanical systems. *Applied Mathematical Modelling*, **2007**, 31, 734-748	4.5	5
136	Correlation regimes in fluctuations of fatigue crack growth. *Physica A: Statistical Mechanics and Its Applications*, **2006**, 359, 1-23	3.3	5
135	Use of Reactivity Constraints for the Automatic Control of Reactor Power. *IEEE Transactions on Nuclear Science*, **1985**, 32, 1036-1040	1.7	5
134	Data-driven robot gait modeling via symbolic time series analysis **2016**,		5
133	Sequential hypothesis tests for streaming data via symbolic time-series analysis. *Engineering Applications of Artificial Intelligence*, **2019**, 81, 234-246	7.2	4
132	Neural Probabilistic Forecasting of Symbolic Sequences With Long Short-Term Memory. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2018**, 140,	1.6	4
131	Data-driven anytime algorithms for motion planning with safety guarantees **2016**,		4
130	Study of vapor film dynamics and heat transfer through an image processing technique. *International Journal of Heat and Mass Transfer*, **2018**, 125, 1310-1320	4.9	4
129	A Locally Optimal Algorithm for Estimating a Generating Partition from an Observed Time Series and Its Application to Anomaly Detection. *Neural Computation*, **2018**, 30, 2500-2529	2.9	4
128	Modeling of microscope images for early detection of fatigue cracks in structural materials. *International Journal of Advanced Manufacturing Technology*, **2019**, 104, 3899-3913	3.2	4
127	Hilbert space formulation of symbolic systems for signal representation and analysis. *Signal Processing*, **2013**, 93, 2594-2611	4.4	4
126	Prediction of Thermoacoustic Instabilities in a Premixed Combustor based on FFT-based Dynamic Characterization **2017**,		4
125	Dynamic context-aware sensor selection for sequential hypothesis testing **2014**,		4
124	Statistical Mechanics-Inspired Modeling of Heterogeneous Packet Transmission in Communication Networks. *IEEE Transactions on Systems, Man, and Cybernetics*, **2012**, 42, 1083-94		4
123	Distributed network control for mobile multi-modal wireless sensor networks. *Journal of Parallel and Distributed Computing*, **2011**, 71, 460-470	4.4	4

122	Autonomous robot navigation using optimal control of probabilistic regular languages. *International Journal of Control*, **2009**, 82, 13-26	1.5	4
121	Statistical estimation of multiple parameters via symbolic dynamic filtering. *Signal Processing*, **2009**, 89, 981-988	4.4	4
120	Semantic sensor fusion for fault diagnosis in aircraft gas turbine engines **2011**,		4
119	A stopping rule for symbolic dynamic filtering. *Applied Mathematics Letters*, **2010**, 23, 1125-1128	3.5	4
118	Integrated decision and control of human-engineered complex systems. *International Journal of General Systems*, **2006**, 35, 275-294	2.1	4
117	Identification of statistical patterns in complex systems via symbolic time series analysis. *ISA Transactions*, **2006**, 45, 477-90	5.5	4
116	Extended discrete-time LTR synthesis of delayed control systems. *Automatica*, **1993**, 29, 431-438	5.7	4
115	Multi-Level Hypotheses Testing for Fault Detection in Continuous Process. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1990**, 112, 787-790	1.6	4
114	On-Line Fault Diagnosis in a Nuclear Reactor by Sequential Testing. *IEEE Transactions on Nuclear Science*, **1983**, 30, 1850-1855	1.7	4
113	Online Discovery and Classification of Operational Regimes From an Ensemble of Time Series Data. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2020**, 142,	1.6	4
112	Data-driven Detection and Early Prediction of Thermoacoustic Instability in a Multi-nozzle Combustor. *Combustion Science and Technology*, **2020**, 1-32	1.5	4
111	Early Detection of Fatigue Crack Damage in Ductile Materials: A Projection-Based Probabilistic Finite State Automata Approach. *ASME Letters in Dynamic Systems and Control*, **2021**, 1,		4
110	Information-space partitioning and symbolization of multi-dimensional time-series data using density estimation **2016**,		4
109	Transfer learning of deep neural networks for predicting thermoacoustic instabilities in combustion systems. *Energy and AI*, **2021**, 5, 100085	12.6	4
108	Measure invariance of ergodic symbolic systems for low-delay detection of anomalous events. *Mechanical Systems and Signal Processing*, **2021**, 159, 107746	7.8	4
107	Reduced-order modelling of thermoacoustic instabilities in a two-heater Rijke tube. *Combustion Theory and Modelling*, **2020**, 24, 530-548	1.5	3
106	Performance robustness of feature extraction for target detection & classification **2014**,		3
105	Path planning in GPS-denied environments: A collective intelligence approach **2015**,		3

104	Robot Path Planning in Uncertain Environments: A Language-Measure-Theoretic Approach. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2015**, 137,	1.6	3
103	Understanding phase transition in communication networks to enable robust and resilient control **2009**,		3
102	Suboptimal partitioning of time-series data for anomaly detection **2009**,		3
101	Unsupervised inductive learning in symbolic sequences via Recursive Identification of Self-Similar Semantics **2011**,		3
100	Dynamic Information Fusion Driven Design of Urban Sensor Networks **2007**,		3
99	Autonomous Navigation of Mobile Robots Using Optimal Control of Finite State Automata **2006**,		3
98	A language measure for partially observed discrete event systems. *International Journal of Control*, **2006**, 79, 1074-1086	1.5	3
97	Anomaly Detection in Complex Systems *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2003**, 36, 1119-1124		3
96	Calibration and estimation of redundant signals. *Automatica*, **2000**, 36, 1525-1534	5.7	3
95	GRAMMIAN ASSIGNMENT FOR STOCHASTIC PARAMETER SYSTEMS AND THEIR STABILIZATION UNDER RANDOMLY VARYING DELAYS. *Optimal Control Applications and Methods*, **1995**, 16, 263-272	1.7	3
94	Statistical Analysis of the Capabilities of Various Pattern Recognition Algorithms for Fracture Detection Based on Monitoring Drilling Parameters. *Rock Mechanics and Rock Engineering*, **2020**, 53, 2265-2278	5.7	3
93	Early Prediction of Lean Blowout from Chemiluminescence Time Series Data. *Combustion Science and Technology*, **2020**, 1-28	1.5	3
92	A dual-imaging framework for multi-scale measurements of fatigue crack evolution in metallic materials. *International Journal of Fatigue*, **2021**, 142, 105922	5	3
91	A Data-Driven Framework for Early-Stage Fatigue Damage Detection in Aluminum Alloys Using Ultrasonic Sensors. *Machines*, **2021**, 9, 211	2.9	3
90	Lean Blowout (LBO) Prediction Through Symbolic Time Series Analysis **2017**, 153-167		2
89	Neural Network-Based Automated Assessment of Fatigue Damage in Mechanical Structures. *Machines*, **2020**, 8, 85	2.9	2
88	Bayesian Nonparametric Regression Modeling of Panel Data for Sequential Classification. *IEEE Transactions on Neural Networks and Learning Systems*, **2018**, 29, 4128-4139	10.3	2
87	Bayesian Nonparametric Modeling of Categorical Data for Information Fusion and Causal Inference. *Entropy*, **2018**, 20,	2.8	2

86	Bayesian nonparametric modeling of Markov chains for detection of thermoacoustic instabilities **2017**,	2
85	Feature level sensor fusion for target detection in dynamic environments **2015**,	2
84	Stability Monitoring of Rotorcraft Systems: A Dynamic Data-Driven Approach. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2014**, 136,	1.6	2
83	Language measure-theoretic path planning in the presence of dynamic obstacles **2013**,	2
82	Spatiotemporal information fusion for fault detection in shipboard auxiliary systems **2013**,	2
81	Symbolic identification for anomaly detection in aircraft gas turbine engines **2010**,	2
80	Optimal control of infinite horizon partially observable decision processes modelled as generators of probabilistic regular languages. *International Journal of Control*, **2010**, 83, 457-483	1.5	2
79	Ultrasonic measurement of crack opening load for life-extending control of mechanical structures **2009**,	2
78	Optimal path-planning under finite memory obstacle dynamics based on probabilistic finite state automata models **2009**,	2
77	Data driven anomaly detection via symbolic identification of complex dynamical systems **2009**,	2
76	GODDeS: Globally ?-Optimal Routing Via Distributed Decision-theoretic Self-organization **2011**,	2
75	Symbolic transient time-series analysis for fault detection in aircraft gas turbine engines **2012**,	2
74	Multi-resolution navigation of mobile robots with complete coverage of unknown and complex environments **2012**,	2
73	Estimation of multiple parameters in dynamical systems **2008**,	2
72	Symbolic identification and anomaly detection in complex dynamical systems **2008**,	2
71	Prognosis of Failure Precursor in Complex Electrical Systems Using Symbolic Dynamics. *Proceedings of the American Control Conference*, **2007**,	1.2	2
70	Detection and identification of potential faults via multi-level hypotheses testing. *Signal Processing*, **2002**, 82, 853-859	4.4	2
69	Calibration and estimation of redundant signals for real-time monitoring and control. *Signal Processing*, **2003**, 83, 2593-2605	4.4	2

68	A COMPLEX MEASURE FOR LINEAR GRAMMARS. *Demonstratio Mathematica*, **2005**, 38,	1.6	2
67	Observer-embedded L2-gain control. *Applied Mathematics Letters*, **2001**, 14, 563-569	3.5	2
66	Damage-Mitigating Control With Overload Injection: Experimental Validation of the Concept1. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2000**, 122, 336-342	1.6	2
65	Nonlinear Life-Extending Control of a Rocket Engine. *Journal of Guidance, Control, and Dynamics*, **2000**, 23, 759-762	2.1	2
64	On Modeling of Integrated Communication and Control Systems. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **1990**, 112, 790-794	1.6	2
63	Delay Compensation in Integrated Communication and Control Systems: Part II -- Implementation and Verification **1990**,		2
62	Delay Compensation in Integrated Communication and Control Systems: Part I -- Conceptual Development and Analysis **1990**,		2
61	Digital Simulaiion of a Commercial Scale High Temperature Gas-Cooled Reactor (HTGR) Steam Power Plant. *IEEE Transactions on Nuclear Science*, **1978**, 25, 1068-1077	1.7	2
60	A Dynamically Stabilized Recurrent Neural Network. *Neural Processing Letters*,1	2.4	2
59	**2016**,		2
58	Improving the capability of detecting joints and fractures in rock mass from roof bolt drilling data by using wavelet analysis. *International Journal of Oil, Gas and Coal Technology*, **2019**, 20, 97	0.6	2
57	Dynamic Data-Driven Combustor Design for Mitigation of Thermoacoustic Instabilities. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2019**, 141,	1.6	2
56	HMM conditional-likelihood based change detection with strict delay tolerance. *Mechanical Systems and Signal Processing*, **2021**, 147, 107109	7.8	2
55	Optimal Window-Symbolic Time Series Analysis for Pattern Classification and Anomaly Detection. *IEEE Transactions on Industrial Informatics*, **2021**, 1-1	11.9	2
54	Sparse Representation for Time-Series Classification **2017**, 199-215		1
53	On Singular Perturbation of Neutron Point Kinetics in the Dynamic Model of a PWR Nuclear Power Plant. *Sci*, **2020**, 2, 36	0.7	1
52	On Singular Perturbation of Neutron Point Kinetics in the Dynamic Model of a PWR Nuclear Power Plant. *Sci*, **2020**, 2, 30	0.7	1
51	Detection of Thermoacoustic Instabilities Via Nonparametric Bayesian Markov Modeling of Time-Series Data. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2018**, 140,	1.6	1

50	Target detection and target type & motion classification: Comparison of feature extraction algorithms **2014**,		1
49	Game Theoretic Controller Synthesis for Multi-Robot Motion Planning-Part II: Policy-based Algorithms. *IFAC-PapersOnLine*, **2015**, 48, 168-173	0.7	1
48	Probabilistic forecasting of symbol sequences with deep neural networks **2017**,		1
47	BEHAVIOR PREDICTION FOR DECISION AND CONTROL IN COGNITIVE AUTONOMOUS SYSTEMS. *New Mathematics and Natural Computation*, **2013**, 09, 263-271	0.6	1
46	Distributed decision propagation in mobile agent networks **2010**,		1
45	Pattern classification in symbolic streams via semantic annihilation of information **2010**,		1
44	**2009**,		1
43	Supervised self-organization of large homogeneous Swarms using Ergodic Projections of Markov Chains **2009**,		1
42	DESIGNING A FUSION-DRIVEN SENSOR NETWORK TO SELECTIVELY TRACK MOBILE TARGETS. *Parallel Processing Letters*, **2012**, 22, 1250001	0.3	1
41	Self-organization of sensor networks for detection of pervasive faults. *Signal, Image and Video Processing*, **2010**, 4, 99-104	1.6	1
40	Generalised projections in finite state automata and decidability of state determinacy. *International Journal of Control*, **2008**, 81, 1626-1644	1.5	1
39	Wavelet Space Partitioning for Symbolic Time Series Analysis. *Chinese Physics Letters*, **2006**, 23, 1951-1954	0.8	1
38	Generalized Projections in Finite State Automata & Decidability of State Determinacy. *Proceedings of the American Control Conference*, **2007**,	1.2	1
37	Hierarchical Discrete Event Supervisory Control of Aircraft Propulsion Systems **2004**,		1
36	Robust optimal control of regular languages. *Automatica*, **2005**, 41, 1439-1445	5.7	1
35	A decision support system for real-time monitoring and control of dynamical processes. *International Journal of Intelligent Systems*, **1991**, 6, 739-758	8.4	1
34	Twin-bus-controller protocol for fibre optic networks. *Computer Communications*, **1991**, 14, 598-607	5.1	1
33	Computer Control of Power in a Nuclear Reactor. *IEEE Transactions on Nuclear Science*, **1983**, 30, 820-824	1.7	1

List of Publications

14   Optimal Discrete Event Control of Gas Turbine Engines **2005**, 183-205

13   Optimal Supervisory Control of Regular Languages **2005**, 39-69

12   Fixed memory filter for real-time estimation of noise-corrupted signals. *Journal of Guidance, Control, and Dynamics*, **1994**, 17, 631-634   2.1

11   Discrete-time loop transfer recovery with multistep delays. *Optimal Control Applications and Methods*, **1992**, 13, 255-263   1.7

10   Modelling and analysis of a data communication protocol for integrated control of advanced aircraft. *Computer Communications*, **1993**, 16, 350-365   5.1

9   Analysis and simulation of the priority scheme in token bus protocols. *Computer Communications*, **1990**, 13, 157-164   5.1

8   Service access procedure (SAP) for a transport layer protocol. *Telematics and Informatics*, **1988**, 5, 65-73   8.1

7   Point-kinetics neutron noise modeling and analysis via probabilistic finite state automata. *Nuclear Engineering and Design*, **2022**, 388, 111628   1.8

6   Advanced Topics in Supervisory Control **2005**, 95-130

5   On Compression of Machine-Derived Context Sets for Fusion of Multi-modal Sensor Data **2018**, 571-586

4   Real-Time Monitoring and Diagnostics of Anomalous Behavior in Dynamical Systems. *Energy, Environment, and Sustainability*, **2020**, 301-327   0.8

3   Identification of Long-Term Behavior of Natural Circulation Loops: A Thresholdless Approach from an Initial Response. *Sci*, **2021**, 3, 14   0.7

2   Markov Modeling via Spectral Analysis: Application to Detecting Combustion Instabilities **2022**, 129-145

1   On Compression of Machine-Derived Context Sets for Fusion of Multi-modal Sensor Data **2022**, 585-600