# Emil M Petriu

List of Publications by Year
in descending order

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|---|---|---|---|
| 87<br>papers | 1,995<br>citations | 304743<br>22<br>h-index | 477307<br>29<br>g-index |
| 87<br>all docs | 87<br>docs citations | 87<br>times ranked | 1758<br>citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Grey Wolf Optimizer Algorithm-Based Tuning of Fuzzy Control Systems With Reduced Parametric Sensitivity. IEEE Transactions on Industrial Electronics, 2017, 64, 527-534. | 7.9 | 225 |
| 2 | Evolving Fuzzy Models for Prosthetic Hand Myoelectric-Based Control. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4625-4636. | 4.7 | 120 |
| 3 | Hybrid Particle Filterâ€"Particle Swarm Optimization Algorithm and Application to Fuzzy Controlled Servo Systems. IEEE Transactions on Fuzzy Systems, 2022, 30, 4286-4297. | 9.8 | 117 |
| 4 | Novel Adaptive Gravitational Search Algorithm for Fuzzy Controlled Servo Systems. IEEE Transactions on Industrial Informatics, 2012, 8, 791-800. | 11.3 | 102 |
| 5 | Reinforcement Learning-based control using Q-learning and gravitational search algorithm with experimental validation on a nonlinear servo system. Information Sciences, 2022, 583, 99-120. | 6.9 | 99 |
| 6 | Optimal tuning of interval type-2 fuzzy controllers for nonlinear servo systems using Slime Mould Algorithm. International Journal of Systems Science, 2023, 54, 2941-2956. | 5.5 | 86 |
| 7 | Nature-inspired optimal tuning of input membership functions of Takagi-Sugeno-Kang fuzzy models for Anti-lock Braking Systems. Applied Soft Computing Journal, 2015, 27, 575-589. | 7.2 | 83 |
| 8 | Stability analysis and design of a class of MIMO fuzzy control systems. Journal of Intelligent and Fuzzy Systems, 2013, 25, 145-155. | 1.4 | 73 |
| 9 | Iterative Data-Driven Tuning of Controllers for Nonlinear Systems With Constraints. IEEE Transactions on Industrial Electronics, 2014, 61, 6360-6368. | 7.9 | 70 |
| 10 | Fuzzy logicâ€based adaptive gravitational search algorithm for optimal tuning of fuzzyâ€controlled servo systems. IET Control Theory and Applications, 2013, 7, 99-107. | 2.1 | 69 |
| 11 | Online identification of evolving Takagiâ€"Sugenoâ€"Kang fuzzy models for crane systems. Applied Soft Computing Journal, 2014, 24, 1155-1163. | 7.2 | 63 |
| 12 | Novel Tensor Product Models for Automatic Transmission System Control. IEEE Systems Journal, 2012, 6, 488-498. | 4.6 | 61 |
| 13 | Experiment-Based Teaching in Advanced Control Engineering. IEEE Transactions on Education, 2011, 54, 345-355. | 2.4 | 59 |
| 14 | Data-Driven Reference Trajectory Tracking Algorithm and Experimental Validation. IEEE Transactions on Industrial Informatics, 2013, 9, 2327-2336. | 11.3 | 59 |
| 15 | Dynamic Sign Language Recognition for Smart Home Interactive Application Using Stochastic Linear Formal Grammar. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 596-605. | 4.7 | 55 |
| 16 | Tensor productâ€based model transformation approach to tower crane systems modeling. Asian Journal of Control, 2021, 23, 1313-1323. | 3.0 | 54 |
| 17 | An Easily Understandable Grey Wolf Optimizer and Its Application to Fuzzy Controller Tuning. Algorithms, 2017, 10, 68. | 2.1 | 44 |
| 18 | Multimodal Bio-Inspired Tactile Sensing Module. IEEE Sensors Journal, 2017, 17, 3231-3243. | 4.7 | 42 |

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| 19 | Experiment-Based Approach to Teach Optimization Techniques. IEEE Transactions on Education, 2021, 64, 88-94. | 2.4 | 41 |
| 20 | Combination of Data-Driven Active Disturbance Rejection and Takagi-Sugeno Fuzzy Control with Experimental Validation on Tower Crane Systems. Energies, 2019, 12, 1548. | 3.1 | 35 |
| 21 | Absolute-type position transducers using a pseudorandom encoding. IEEE Transactions on Instrumentation and Measurement, 1987, IM-36, 950-955. | 4.7 | 30 |
| 22 | Multimodal Bio-Inspired Tactile Sensing Module for Surface Characterization. Sensors, 2017, 17, 1187. | 3.8 | 24 |
| 23 | Virtual Reference Feedback Tuning of Model-Free Control Algorithms for Servo Systems. Machines, 2017, 5, 25. | 2.2 | 23 |
| 24 | Evolving fuzzy models for myoelectric-based control of a prosthetic hand. , 2016, , . | | 20 |
| 25 | Tensor product-based model transformation for position control of magnetic levitation systems. , 2017, , . | | 19 |
| 26 | Model-free tuning solution for sliding mode control of servo systems. , 2014, , . | | 15 |
| 27 | Dynamic hand gesture recognition for human-robot and inter-robot communication. , 2014, , . | | 15 |
| 28 | Estimating the Orientation of Objects from Tactile Sensing Data Using Machine Learning Methods and Visual Frames of Reference. Sensors, 2019, 19, 2285. | 3.8 | 15 |
| 29 | Multi-robot GSA- and PSO-based optimal path planning in static environments. , 2013, , . | | 14 |
| 30 | Data-driven model-free control of twin rotor aerodynamic systems: Algorithms and experiments. , 2014, , . | | 13 |
| 31 | Recurrent dynamic neural network model for myoelectric-based control of a prosthetic hand. , 2016, , . | | 13 |
| 32 | Model -Free Adaptive Control With Fuzzy Component for Tower Crane Systems. , 2019, , . | | 13 |
| 33 | Human action recognition from local part model. , 2011, , . | | 11 |
| 34 | Adaptive control solutions for the position control of electromagnetic actuated clutch systems. , 2012, , . | | 10 |
| 35 | Dynamic sign language and voice recognition for smart home interactive application. , 2013, , . | | 10 |
| 36 | Tensor product–based model transformation approach to cart position modeling and control in pendulum–cart systems. Asian Journal of Control, 2021, 23, 1238-1248. | 3.0 | 9 |

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| 37 | Adaptive hybrid Particle Swarm Optimization-Gravitational Search Algorithm for fuzzy controller tuning. , 2014, , . | | 8 |
| 38 | Model predictive control solution for magnetic levitation systems. , 2015, , . | | 8 |
| 39 | Dynamic hand gesture recognition from Bag-of-Features and local part model. , 2012, , . | | 7 |
| 40 | Performance analysis of torque motor systems with PID controllers tuned by Bacterial Foraging Optimization algorithms. , 2014, , . | | 7 |
| 41 | Data-driven optimal model-free control of twin rotor aerodynamic systems. , 2015, , . | | 7 |
| 42 | Teaching a Robot Sign Language using Vision-Based Hand Gesture Recognition. , 2018, , . | | 7 |
| 43 | Data-Driven Model-Free Sliding Mode and Fuzzy Control with Experimental Validation. International Journal of Computers, Communications and Control, 2021, 16, . | 1.8 | 7 |
| 44 | Modeling and control of an Electric drive system with continuously variable reference, moment of inertia and load disturbance. , 2013, , . | | 6 |
| 45 | Backtracking Search Optimization Algorithm-based approach to PID controller tuning for torque motor systems. , 2015, , . | | 6 |
| 46 | PI and PID controller tuning for an automotive application using backtracking search optimization algorithms. , 2015, , . | | 6 |
| 47 | Design of Low-Cost Fuzzy Controllers with Reduced Parametric Sensitivity Based on Whale Optimization Algorithm. , 2020, , . | | 6 |
| 48 | Low-cost neuro-fuzzy control solution for servo systems with variable parameters. , 2013, , . | | 5 |
| 49 | Evolving fuzzy models for the position control of twin rotor aerodynamic systems. , 2016, , . | | 5 |
| 50 | Structure and Evolving Fuzzy Models for Prosthetic Hand Myoelectric-Based Control Systems. , 2018, , . | | 5 |
| 51 | In-Hand Telemanipulation Using a Robotic Hand and Biology-Inspired Haptic Sensing. , 2019, , . | | 5 |
| 52 | Intelligent Parking Vehicle Identification and Classification System. , 2021, , . | | 5 |
| 53 | Nature-Inspired Optimization Algorithms for Path Planning and Fuzzy Tracking Control of Mobile Robots. Springer Tracts in Nature-inspired Computing, 2021, , 129-148. | 0.7 | 5 |
| 54 | Teleoperated Grasping Using a Robotic Hand and a Haptic-Feedback Data Glove. , 2020, , . | | 5 |

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| 55 | Stable Iterative Correlation-based Tuning algorithm for servo systems. , 2012, , . | | 4 |
| 56 | Experiment-based approach to reference trajectory tracking. , 2012, , . | | 4 |
| 57 | Multi-robot charged system search-based optimal path planning in static environments. , 2014, , . | | 4 |
| 58 | Design and testing of a constrained data-driven iterative reference input tuning algorithm. , 2014, , . | | 4 |
| 59 | Takagi-Sugeno PD&#x002B;I fuzzy control of processes with variable moment of inertia. , 2015, , . | | 4 |
| 60 | Evolving fuzzy models for the position control of magnetic levitation systems. , 2017, , . | | 4 |
| 61 | Fuzzy controlled object manipulation using a three-fingered robotic hand. , 2017, , . | | 4 |
| 62 | Takagi-Sugeno fuzzy controller structures for twin rotor aerodynamic systems. , 2017, , . | | 4 |
| 63 | Tactile Profile Classification Using a Multimodal MEMs-Based Sensing Module. Proceedings (mdpi), 2017, 1, 27. | 0.2 | 4 |
| 64 | Tensor Productâ€"Based Model Transformation and Sliding Mode Control of Electromagnetic Actuated Clutch System. , 2019, , . | | 4 |
| 65 | Dynamic Tactile Exploration for Texture Classification using a Miniaturized Multi-modal Tactile Sensor and Machine Learning. , 2020, , . | | 4 |
| 66 | Magnetic Levitation System laboratory-based education in control engineering. , 2010, , . | | 3 |
| 67 | Object Recognition Through Manipulation Using Tactile Enabled Prosthetic Fingers and Feedback Glove - Experimental Study. , 2018, , . | | 3 |
| 68 | Biology-inspired multimodal tactile sensor system. , 2011, , . | | 2 |
| 69 | 2-DOF PI(D) Takagi-Sugeno and sliding mode controllers for BLDC drives. , 2012, , . | | 2 |
| 70 | Takagi-Sugeno fuzzy control solutions for BLDC drives. , 2012, , . | | 2 |
| 71 | Simulated annealing-based optimization of fuzzy models for magnetic levitation systems. , 2013, , . | | 2 |
| 72 | Iterative Data-Driven Controller Tuning with Actuator Constraints and Reduced Sensitivity. Journal of Aerospace Information Systems, 2014, 11, 551-564. | 1.4 | 2 |

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|---|---------|-----|-----------|
| 73 | Particle Swarm Optimization of fuzzy models for electromagnetic actuated clutch systems. , 2016, , . | | 2 |
| 74 | Comparative Study of Control Structures for Maglev Systems. , 2018, , . | | 2 |
| 75 | Heart Rate Detection Using a Miniaturized Multimodal Tactile Sensor. , 2019, , . | | 2 |
| 76 | Simulated annealing approach to fuzzy modeling of servo systems. , 2013, , . | | 1 |
| 77 | Constrained data-driven controller tuning for nonlinear systems. , 2013, , . | | 1 |
| 78 | Optimal motion prediction using a primitive-based model-free iterative control approach for crane systems. , 2015, , . | | 1 |
| 79 | Model-based filtering and compression of oscillometric blood pressure pulses. , 2016, , . | | 1 |
| 80 | Stable grasping and object reorientation with a three-fingered robotic hand. , 2017, , . | | 1 |
| 81 | Combined control solution for an advanced mechatronics application. , 2017, , . | | 1 |
| 82 | Fuzzy logic-based adaptive control scheme for magnetic levitation systems. , 2017, , . | | 1 |
| 83 | Neuro-Fuzzy Grasp Control for a Teleoperated Five Finger Anthropomorphic Robotic Hand. , 2022, , . | | 1 |
| 84 | 2-DOF control solutions for an electric drive system under continuously variable conditions. , 2013, , . | | 0 |
| 85 | Bio-inspired solutions for intelligent android perception and control. , 2013, , . | | 0 |
| 86 | Experiment-based comparison of nature-inspired algorithms for optimal tuning of PI-fuzzy controlled nonlinear DC servo systems. , 2016, , . | | 0 |
| 87 | Wilt Dataset-based Comparative Analysis of Three Neural Networks. , 2020, , . | | 0 |