Dr. Alex Alexandridis, Professor

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Curriculum Vitae

General Information

Dr. Alex Alexandridis was born in Athens, Greece. He is currently a Professor of Neural Networks at the Department of Electrical and Electronic Engineering of the University of West Attica.

Education

2000-2003: National Technical University of Athens, PhD in Computational Intelligence and Control Systems
Title: "Development of neural network training algorithms for modeling and control of nonlinear dynamical systems"

1995-2000: National Technical University of Athens, Diploma in Chemical Engineering

Academic Appointments

2018-present: University of West Attica, Department of Electrical and Electronic Engineering
Professor

2015-2018: University of Thessaly, Department of Mechanical Engineering
Adjunct Associate Professor

2014-2018: University of West Attica, Department of Electrical and Electronic Engineering (former Technological Educational Institute of Athens, Department of Electronic Engineering)
Associate Professor

2010-2014: University of West Attica, Department of Electrical and Electronic Engineering (former Technological Educational Institute of Athens, Department of Electronic Engineering)
Assistant Professor

2007-2010: University of West Attica, Department of Electrical and Electronic Engineering (former Technological Educational Institute of Athens, Department of Electronic Engineering)
Adjunct Assistant Professor

2004-2010: National Technical University of Athens, School of Chemical Engineering
Post-Doctoral Research Associate

2000-2003: National Technical University of Athens, School of Chemical Engineering
Research Associate

Other Professional Appointments

2014-present: *Evaluator for numerous European and Greek National projects*

2005-2007: American Process Inc.
Senior Process Engineer – Product Manager

2000-2003: American Process Inc.
Scientific Associate

Research Grants

2021- 2023: Development of a novel model predictive control method for sewage treatment plants aiming at optimizing performance and minimizing energy consumption
Research – Create – Innovate (second call), Greek General Secretariat of Research and Innovation
Principal Investigator *Total budget: 997.059,75€*

2020-2021: Cooperative distributed adaptive model predictive control methods using computational intelligence
EDBM103, Research Grant for Researcher Support with emphasis on Young Scientists (second call), Operational Programme Human Resources Development, Education and Lifelong Learning 2014-2020, Greek Ministry of Development and Investments
Principal Investigator *Total budget: 41.041,00€*

2018-2021: iReact – Next Generation
Research – Create – Innovate, Greek General Secretariat of Research and Technology
Principal Investigator *Total budget: 461.460,00€*

2012-2015: Computational intelligence methods in solving computational mathematics problems
Archimedes III Project, Greek General Secretariat of Research and Technology
Senior researcher *Total budget: 80.000,00€*

2012-2015: Integrated understanding of seismicity, using innovative methodologies of fracture mechanics along with earthquake and non-extensive statistical physics – application to the geodynamic system of the Hellenic arc
Thalis Project, Greek General Secretariat of Research and Technology
Senior researcher *Total budget: 600.000,00€*

2012-2015: Non-destructive evaluation of cement-based materials by studying weak electric signals generated by knocking mechanic load
Archimedes III Project, Greek General Secretariat of Research and Technology
Senior researcher *Total budget: 80.000,00€*

2005-2007: Modeling and control of nonlinear processes using computational intelligence tools
Grant for post-doctoral studies, Greek State Scholarship Foundation (IKY)
Principal Investigator *Total budget: 11.400,00€*

2003-2006: An operational system for planning and design support in wildfire management
Operational Program "Competitiveness", Greek General Secretariat of Research and Technology
Senior researcher *Total budget: 2.989.400,00€*

2002-2005: Development of sales prediction and production planning systems using artificial intelligence methodologies
PENED program, Greek General Secretariat of Research and Technology in cooperation with FAGE S.A.
Senior researcher *Total budget: 132.048,00€*

2002-2004: Solution of mixed nonlinear integer programming problems using genetic algorithms
Thalis Program for supporting basic research, National Technical University of Athens
Researcher *Total budget: 11.739,00€*

Courses Taught

Postgraduate Courses:

2018-present: Computational Intelligence and Deep Learning
2018- present: Industrial and Intelligent Control
2012-2018: Computational Mathematics
2012-2018: Signal Processing and Machine Learning

Undergraduate Courses:

2018- present: Intelligent Control
2018- present: Computational Intelligence
2018- present: Systems Optimization
2007- present: Automatic Control Systems I
2015-2018: Automatic Control (Department of Mechanical Engineering, University of Thessaly)
2011-2018: Intelligent Systems
2009-2018: Introduction to Electronics
2007-2010: Automatic Control Systems II
2007-2008: Digital Control Systems

Teaching assistant in undergraduate courses (National Technical University of Athens):

2001-2003: Computer Programming
2000-2003: Advanced Process Control
2000-2003: Process Control II
2000-2002: Transport Phenomena
1999-2003: Process Control I
1999-2001: Process Analysis and Design

Supervised Theses

Dr. Alexandridis has supervised or is currently supervising:

- 3 PhD Theses (completed)
    - Papadimitrakis Myron, 2023 «Development of optimization and data-driven model predictive control methods using computational intelligence techniques: design and applications with emphasis on the economic operation of engineering systems»
    - Karamichailidou Despoina, 2023 « Development of computational intelligence methods for training radial basis function neural networks with emphasis on adaptive techniques»
    - Kapnopoulos Aristotelis, 2023 «Development and tuning of automatic control methods for nonlinear systems using computational intelligence techniques with emphasis on the control of unmanned aerial vehicles»
- 2 PhD Theses (ongoing)
- 13 Postgraduate Theses
- 15 Diploma Theses (integrated master)
- More than 20 Undergraduate Theses

Dr. Alexandridis is also a member of the advisory committee for 8 PhD Theses

Honors and Awards

2024: Included in the Stanford University List of Top 2% of Scientists Worldwide

2023: Included in the Stanford University List of Top 2% of Scientists Worldwide

2022: Included in the Stanford University List of Top 2% of Scientists Worldwide

2018: Annual academic teaching award by the Department of Mechanical Engineering, University of Thessaly, for instructing the course “Automatic Control”.

2017: Annual academic teaching award by the Department of Mechanical Engineering, University of Thessaly, for instructing the course “Automatic Control”.

2016: Annual academic teaching award by the Department of Mechanical Engineering, University of Thessaly, for instructing the course “Automatic Control”.

2014: The paper entitled “Music Genre Classification Using Radial Basis Function Networks and Particle Swarm Optimization” was included in the best 5 paper session of the IEEE Computer Science and Electronic Engineering Conference (CEEC), Essex, UK.

2011-2016: Five (5) of the diploma theses supervised by Dr. Alexandridis have been awarded the “Best Diploma Thesis” award in the entire School of Engineering of the Technological Educational Institute of Athens.

2005-2007: Grant from the State Scholarship Foundation (IKY) for post-doctoral research

2003: New Scientist Award from the Thomaidis Foundation

2002-2003: Scholarship from the Onassis Foundation

2001: Scholarship from the Evgenidis Foundation

1999: Scholarship and distinction from the Greek State Scholarship Foundation (IKY) for the highest performance in the Chemical Engineering School

1998: Scholarship and distinction from the Greek State Scholarship Foundation (IKY) for the highest performance in the Chemical Engineering School

Professional Memberships

2012-present: Senior Member of the Institute of Electrical and Electronics Engineers (IEEE)

2000-present: Member of the Greek Technical Chamber (Chartered engineer)

2000-present: Member of the Greek Association of Chemical Engineers

Language Skills

- Greek (Mother language)
- English
- French
- German (Basic command)

Editorial Work / Peer Review Activities

Editorial work

- IEEE Transactions on Neural Networks and Learning Systems (Member of the Editorial Board)
- Sensors (Member of the Editorial Board)
- Results in Optimization and Control (Member of the Editorial Board)
- Complexity (Member of the Editorial Board)
- Cogent Engineering (Member of the Editorial Board)
- Sensors (Guest Editor of the Special Issue entitled "Soft Sensors and Intelligent Algorithms for Data Fusion")
- Future Internet (Guest Editor of the Special Issue entitled "Computational Intelligence in Internet of Things")

Reviewer

- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Cybernetics
- IEEE Transactions on Industrial Electronics
- Journal of Process Control
- Expert Systems with Applications
- Applied Soft Computing
- Neurocomputing
- International Journal of Neural Systems
- Engineering Applications of Artificial Intelligence
- Soft Computing
- Journal of Biomedical Informatics
- Sensors
- Journal of Applied Mathematics
- Integrated Computer Aided Engineering
- Natural Hazards and Earth System Sciences
- International Journal of Biomedical Imaging

Citations and Impact

Scopus, 10/1/2024

- Citations excluding self-citations of all authors: 2034
- *h*-index: 33

Google Scholar, 6/1/2024

- Total citations: 3665
- *h*-index: 36

Impact Factors according to Clarivate Analytics (2023):

- Total journal impact factor: 303
- Average journal impact factor: 5.4

Publications

1. Academic Theses

1.1 Alexandridis, A., "Development of neural network training algorithms for modeling and control of nonlinear dynamical systems", PhD Thesis, National Technical University of Athens, Department of Chemical Engineering, 2003.

1.2 Alexandridis, A., "Nonlinear system identification using neural networks", Diploma Thesis, Department of Chemical Engineering, 2000.

2. Journal publications

2.1 Karamichailidou, D., G. Gerolymatos, P. Patrinos, H. Sarimveis, A. Alexandridis, "Radial basis function neural network training using variable projection and fuzzy means", **Neural Computing and Applications**, (2024) DOI: 10.1007/s00521-024-10274-3.

2.2 Kordatos, I., A. Donas, G. Galanis, I. Famelis, A. Alexandridis, "Significant wave height prediction in nested domains using radial basis function neural networks", **Ocean Engineering**, 305 (2024) 117865.

2.3 Protoulis, T., H. Sarimveis, A. Alexandridis, "Development and identification of a reduced-order dynamic model for wastewater treatment plants", **Journal of Process Control**, 138 (2024) 103211.

2.4 Kapnopoulos, A., C. Kazakidis, Alex Alexandridis "Quadrotor trajectory tracking based on backstepping control and radial basis function neural networks", **Results in Control and Optimization**, 14 (2024) 10335.

2.5 Zois, E., S. Said, D. Tsourounis, A. Alexandridis, "Subscripto multiplex: a Riemannian symmetric positive definite strategy for offline signature verification", **Pattern Recognition Letters**, 167 (2023) 67-74.

2.6 Giamarelos, N., M. Papadimitrakis, M. Stogiannos, E.N. Zois, N.A. Livanos, A. Alexandridis, "A Machine Learning Model Ensemble for Mixed Power Load Forecasting across Multiple Time Horizons", **Sensors**, 23(12) (2023) 5436.

2.7 Kagkas D., D. Karamichailidou, A. Alexandridis, "Chess position evaluation using radial basis function neural networks", **Complexity**, (2023) 7143943.

2.8 Kalogeropoulos, I., A. Alexandridis, H. Sarimveis, “Economic Oriented Dynamic Matrix Control of Wastewater Treatment Plants”, **Journal of Process Control**, 118 (2022) 202–217.

2.9 Kapnopoulos, A., A. Alexandridis, “A cooperative particle swarm optimization approach for tuning an MPC-based quadrotor trajectory tracking scheme”, **Aerospace Science and Technology**, 127C (2022) 107725.

2.10 Papadimitrakis, M., A. Kapnopoulos, S. Tsavartzidis, A. Alexandridis, “A cooperative PSO algorithm for Volt-VAR optimization in smart distribution grids”, **Electric Power Systems Research**, 212 (2022) 108618.

2.11 Karamichailidou, D., S. Koletsios, A. Alexandridis, “An RBF online learning scheme for non-stationary environments based on fuzzy means and Givens rotations”, **Neurocomputing**, 501C (2022) 370-386.

2.12 Papadimitrakis, M., A. Alexandridis, “Active vehicle suspension control using road preview model predictive control and radial basis function networks”, **Applied Soft Computing**, 120C (2022), 108646.

2.13 Karamichailidou, D., A. Alexandridis, G. Anagnostopoulos, G. Syriopoulos, O. Sekkas, “Modeling biogas production from anaerobic wastewater treatment plants using radial basis function networks and differential evolution”, **Computers and Chemical Engineering**, 157C (2022), 107629.

2.14 Papadimitrakis, N., N. Giamarelos, M. Stogiannos, E.N. Zois, N.A. Livanos, A. Alexandridis, “Metaheuristic search in smart grid: A review with emphasis on planning, scheduling and power flow optimization applications”, **Renewable and Sustainable Energy Reviews**, 145 (2021), 111072.

2.15 Karamichailidou D., V. Kaloutsa, A. Alexandridis, “Wind Turbine Power Curve Modeling Using Radial Basis Function Neural Networks and Tabu Search”, **Renewable Energy**, 163 (2021), 2137-2152.

2.16 Papadimitrakis, M. M. Stogiannos, H. Sarimveis, A. Alexandridis, “Multi-ship control and collision avoidance using MPC and RBF-based trajectory predictions”, **Sensors**, 21(21) (2021) 6959.

2.17 Giamarelos, N, E. N. Zois, M. Papadimitrakis, M. Stogiannos, N.-A. I. Livanos and A. Alexandridis, "Short-Term Electric Load Forecasting With Sparse Coding Methods," **IEEE Access**, 9 (2021), pp. 102847-102861.

2.18 Stogiannos, M., A. Alexandridis, H. Sarimveis, “An enhanced decentralized artificial immune-based strategy formulation algorithm for swarms of autonomous vehicles”, **Applied Soft Computing**, 89 (2020), 106135.

2.19 Tarnaris, K., I. Preka, D. Kandris, A. Alexandridis, “Coverage and k-coverage optimization in wireless sensor networks using computational intelligence methods: a comparative study”, **Electronics**, 9 (2020), 675.

2.20 Zois, E.N., A. Alexandridis, G. Economou, “Writer independent offline signature verification based on asymmetric pixel relations and unrelated training-testing datasets”, **Expert Systems with Applications**, 125 (2019), pp. 14-32.

2.21 Korovesis N., D. Kandris, G. Koulouras, A. Alexandridis, "Robot Motion Control via an EEG-Based Brain–Computer Interface by Using Neural Networks and Alpha Brainwaves", **Electronics**, 8(12) (2019), 1387.

2.22 Alexandridis, A., M. Stogiannos, N. Papaioannou, E. Zois, H. Sarimveis, "An Inverse Neural Controller Based on the Applicability Domain of RBF Network Models", **Sensors**, 18(1) (2018), 315.

2.23 Stogiannos, M., A. Alexandridis, H. Sarimveis, "Model predictive control for systems with fast dynamics using inverse neural models", **ISA Transactions**, 72 (2018), Pages 161-177

2.24 Famelis I. Th., A. Alexandridis, Ch. Tsitouras, "A highly accurate DE-PSO algorithm for the construction of initial value problem solvers", **Engineering Optimization**, 50(8) (2018), pp. 1364-1379.

2.25 Alexandridis, A., E. Chondrodima, N. Giannopoulos, H. Sarimveis, "A Fast and Efficient Method for Training Categorical Radial Basis Function Networks", **IEEE Transactions on Neural Networks and Learning Systems**, 28(11) (2017), pp. 2831 - 2836.

2.26 Alexandridis, A., E. Paizis, E. Chondrodima, M. Stogiannos, "A particle swarm optimization approach in printed circuit board thermal design", **Integrated Computer-Aided Engineering**, 24(2) (2017), pp. 143-155.

2.27 Alexandridis, A., E. Chondrodima, H. Sarimveis, "Cooperative learning for radial basis function networks using particle swarm optimization", **Applied Soft Computing**, 49 (2016), pp. 485-497.

2.28 Alexandridis A., I. Stavrakas, C. Stergiopoulos, G. Hloupis, K. Ninos and D. Triantis, "Non-destructive assessment of the three-point-bending strength of mortar beams using radial basis function neural networks", **Computers and Conrete**, 16(6) (2015), pp. 919-932.

2.29 Alexandridis A, E. Chondrodima, "A medical diagnostic tool based on radial basis function classifiers and evolutionary simulated annealing", **Journal of Biomedical Informatics**, 49 (2014), pp. 61-72.

2.30 Alexandridis A, E. Chondrodima, E. Efthimiou, G. Papadakis, F. Vallianatos, D. Triantis, "Large earthquake occurrence estimation based on radial basis function neural networks", **IEEE Transactions on Geoscience and Remote Sensing** 52(9) (2014), pp. 5443-5453.

2.31 Alexandridis, A., "Evolving RBF neural networks for adaptive soft-sensor design", **International Journal of Neural Systems** 23(6) (2013), pp. 1350029.

2.32 Alexandridis, A., E. Chondrodima, H. Sarimveis, "Radial Basis Function network training using a non-symmetric partition of the input space and Particle Swarm Optimization", **IEEE Transactions on Neural Networks and Learning Systems**, 24 (2013), pp. 219-230.

2.33 Alexandridis, A., M. Stogiannos, A. Kyriou, H. Sarimveis, "An offset-free neural controller based on approximating the inverse process dynamics" **Journal of Process Control**, 23(7) (2013), pp. 968–979.

2.34 Stoumbou, E., I. Stavrakas, G. Hloupis, A. Alexandridis, D. Triantis, K. Moutzouris, "A comparative study on the use of the extended-Cauchy dispersion equation for fitting refractive index data in crystals", **Optical and Quantum Electronics**, 45(8) (2013), pp. 837-859.

2.35 Alexandridis, A., D. Triantis, I. Stavrakas, C. Stergiopoulos, "A neural network approach for compressive strength prediction in cement-based materials through the study of pressure-stimulated electrical signals", **Construction and Building Materials**, 30 (2012), pp. 294-300.

2.36 Alexandridis, A., E. Chondrodima, K. Moutzouris, D. Triantis, "A neural network approach for the prediction of the refractive index based on experimental data", **Journal of Materials Science**, 47(2) (2012), pp. 883-891.

2.37 Alexandridis A., L. Russo, D. Vakalis, G.V. Bafas, C.I. Siettos, "Wildland Fire spread Modelling using Cellular Automata: Evolution in Large Scale Spatially Heterogeneous Environments under Fire Suppression Tactics", **International Journal of Wildland Fire**, 20(5) (2011), pp. 633-647.

2.38 Alexandridis, A., H. Sarimveis, K. Ninos, "RBF network training using a non-symmetric partition of the input space – Application to an MPC configuration", **Advances in Engineering Software**, 42(10) (2011), pp. 830-837.

2.39 Patrinos, P., A. Alexandridis, K. Ninos,, H. Sarimveis, "Optimal variable selection in nonlinear modelling based on evolutionary computation", **International Journal of Neural Systems**, 20 (2010), pp. 365-379.

2.40 Alexandridis, A., D. Vakalis, C.I. Siettos, G. Bafas, "A Cellular Automata Model for Forest Fire Spread Prediction: The Case of the Wildfire that Swept through Spetses Island in 1990", **Applied Mathematics and Computation**, 204(1) (2008), pp 191-201.

2.41 Melagraki, G., A. Afantitis, H. Sarimveis, O.I. Markopoulou, A. Alexandridis, "A novel RBF neural network training methodology to predict toxicity to Vibrio Fischeri", **Molecular Diversity**, 10(2) (2006), pp. 213-221.

2.42 Sarimveis, H., P. Doganis, A. Alexandridis, "A classification technique based on Radial Basis Function Neural Networks", **Advances in Engineering Software**, 37 (2006), pp. 218-221.

2.43 Doganis, P., A. Alexandridis, P. Patrinos, H. Sarimveis, "Time series sales forecasting for short shelf-life food products based on artificial neural networks and evolutionary computing", **Journal of food engineering**, 75 (2006), pp. 196-204.

2.44 Alexandridis, A., L. Russo, C.I. Siettos, "Discussion on the Power flow control of a doubly-fed induction machine coupled to a flywheel, **European Journal of Control**, 11 (2005), pp. 222-228.

2.45 Alexandridis, A., H. Sarimveis, "A nonlinear adaptive MPC framework based on self-correcting RBF network models", **AICHE Journal**, 51 (2005), pp. 2495-2506.

2.46 Afantitis, A., G. Melagraki, K. Makridima, A. Alexandridis, H. Sarimveis, O. Iglessi-Markopoulou, "Prediction of high-weight polymers glass transition temperature using RBF neural networks", **Journal of Molecular Structure: THEOCEM**, 716 (2005), pp. 193-198.

2.47 Alexandridis, A., P. Patrinos, H. Sarimveis, "A two-stage evolutionary algorithm for variable selection in the development of RBF neural network models", **Chemometrics and Intelligent Laboratory Systems**, 75(2) (2005), pp. 149-162.

2.48 Vakalis, D., H. Sarimveis, C. Kiranoudis, A. Alexandridis, G. Bafas, "A GIS based operational system for wildland fire crisis management – II. System architecture and case studies", **Applied Mathematical Modelling**, 28 (2004) pp. 411-425.

2.49 Vakalis, D., H. Sarimveis, C. Kiranoudis, A. Alexandridis, G. Bafas, "A GIS based operational system for wildland fire crisis management – I.Mathematical Modeling and Simulation", **Applied Mathematical Modelling**, 28 (2004), pp. 389-410.

2.50 Sarimveis, H., A. Alexandridis, S. Mazarakis, G. Bafas, "A new algorithm for developing dynamic radial basis function neural network models based on genetic algorithms", **Computers and Chemical Engineering**, 28 (2004), pp. 209-217.

2.51 Alexandridis, A., H. Sarimveis, G. Bafas, "Modeling and control of continuous digesters using the PLS methodology", **Chemical Engineering Communications**, 191(10) (2004), pp. 1271-1284.

2.52 Karonis, D., E. Lois, S. Stournas, F. Zannikos, A. Alexandridis, H. Sarimveis, "A neural network approach for the correlation of exhaust emissions from a diesel engine with diesel fuel properties", **Energy and Fuels**, 17(5) (2003), pp. 1259-1265.

2.53 Sarimveis, H., A. Alexandridis, G. Bafas, "A fast training algorithm for RBF networks based on subtractive clustering", **Neurocomputing**, 51 (2003), pp. 501-505.

2.54 Alexandridis, A., H. Sarimveis, G. Bafas, "A new algorithm for online structure and parameter adaptation of RBF networks", **Neural Networks**, 16(7) (2003), pp. 1003-1017.

2.55 Korres, D., G. Anastopoulos, E. Lois, A. Alexandridis, H. Sarimveis, G. Bafas, "A neural network approach to the prediction of Diesel fuel lubricity", **Fuel**, 81 (2002), pp. 1243-1250.

2.56 Sarimveis, H., A. Alexandridis, G. Tsekouras, G. Bafas, "A fast and efficient algorithm for training Radial Basis Function Neural Networks based on a fuzzy partition of the input space", **Industrial and Engineering Chemistry Research**, 41 (2002), pp. 751-759.

2.57 Alexandridis, A.P., C.I. Siettos, H.K. Sarimveis, A.G. Boudouvis, G.V. Bafas, "Modeling of nonlinear process dynamics using Kohonen's Neural Networks, Fuzzy Systems and Chebyshev Series", **Computers and Chemical Engineering**, 26 (2002), pp. 479–486.

3. Selected conference publications

3.1 Vavelidou, D., T. Protoulis, A. Alexandridis, "Trajectory tracking with obstacle avoidance for autonomous UAV swarms based on distributed model predictive control", **2024 IEEE International Conference on Unmanned Aircraft Systems (ICUAS)**, 2024, Chania, Greece.

3.2 Papadimitrakis, M., A. Alexandridis, "A Vessel Propulsion Controller based on Economic Model Predictive Control", **2023 American Control Conference (ACC)**, 2023, San Diego, USA.

3.3 Protoulis, T., I. Kalogeropoulos, I. Kordatos, P.L. Zervas, H. Sarimveis A. Alexandridis, "An Economic-Oriented Model Predictive Control Framework for the Efficient Energy Operation of Wastewater Treatment Plants", **IEEE 4th International Conference on Communications, Information, Electronic and Energy Systems**, 2023, Plovdiv, Bulgaria.

3.4 Protoulis, T., I. Kalogeropoulos, I. Kordatos, A. Kapnopoulos, P.L. Zervas, H. Sarimveis A. Alexandridis, "An Identification and Control Framework for Optimizing the Energy Consumption of a Wastewater Treatment Plant", **IEEE 6th International Conference AND workshop in Óbuda on Electrical and Power Engineering (CANDO EPE)**, 2023, Budapest, Hungary.

3.5 Protoulis, T., I. Kalogeropoulos, I. Kordatos, H. Sarimveis, A. Alexandridis, "A machine learning

dynamic modelling scheme for wastewater treatment plants using cooperative particle swarm optimization and neural networks", **33th European Symposium on Computer Aided Chemical Engineering (ESCAPE 33)**, 2023, Athens, Greece.

3.6 Kalogeropoulos, I., T. Protoulis, I. Kordatos, P.L. Zervas, H. Sarimveis, A. Alexandridis, "A dynamic simulator for optimizing the operation of wastewater treatment plants", **18th Conference on Sustainable Development of Energy, Water and Environment Systems**, 2023, Dubrovnik, Croatia.

3.7 Kalogeropoulos, I., T. Protoulis, I. Kordatos, A. Kapnopoulos, P.L. Zervas, H. Sarimveis A. Alexandridis, "An integrated PSO – DMC framework for the identification and control of wastewater treatment plants", **1st International Conference on Sustainable Chemical and Environmental Engineering (SUSTENG)**, 2022, Rethymno, Greece

3.8 Stogiannos, M., M. Papadimitrakis, H. Sarimveis and A. Alexandridis, "Vessel Trajectory Prediction Using Radial Basis Function Neural Networks", **IEEE EUROCON - 19th International Conference on Smart Technologies**, 2021, Lviv, Ukraine.

3.9 Asteris, P.G., A. Alexandridis, K.G. Kolovos, E.G. Anesti, M.G. Douvika, C.A. Karamani, M.G. Kassolis, A.D. Skentou, "Prediction of mechanical characteristics of soilcrete materials using artificial neural networks", **7th International Conference on Mechanics and Materials in Design**, 2017, Albufeira, Portugal

3.10 Alexandridis, A., I. Th. Famelis, C. Tsitouras, "Particle Swarm Optimization for Complex Nonlinear Optimization Problems", **13th International Conference of Numerical Analysis and Applied Mathematics (ICNAAM)**, 2015, Rhodes, Greece.

3.11 Koulouras, G., A. Alexandridis, S. Karabetsos, S. Grispos, G. Stoumpis, P. Charamis, A. Koulouris and A. Nassiopoulos, "An Embedded PID Temperature Control Scheme with Application in a Medical Microwave Radiometer", **3rd Greek Conference on Electronics and Telecommunications (PACET)**, 2015, Athens, Greece.

3.12 Alexandridis, A., I. Th. Famelis, C. Tsitouras, "Long-Term Time-Series Prediction Using Radial Basis Function Neural Networks", **12th International Conference of Numerical Analysis and Applied Mathematics (ICNAAM)**, 2014, Rhodes, Greece.

3.13 Alexandridis, A., E. Chondrodima, G. Paivana, M. Stogiannos, E. Zois, H. Sarimveis, "Music Genre Classification Using Radial Basis Function Networks and Particle Swarm Optimization", **IEEE Computer Science and Electronic Engineering Conference (CEEC)**, 2014, Essex, UK.

3.14 Alexandridis, A., M. Stogiannos A. Loukidis, K. Ninos, E. Zervas, H. Sarimveis, "Direct Versus Indirect Neural Control Based on Radial Basis Function Networks", **IEEE Computer Science and Electronic Engineering Conference (CEEC)**, 2014, Essex, UK.

3.15 Alexandridis, A., "An Evolutionary-Based approach in RBF Neural Network Training", **IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS)**, 2012, Madrid, Spain.

3.16 Alexandridis, A., D. Triantis, E. Chondrodima, C. Stergiopoulos, G. Hloupis, I. Stavrakas, K. Ninos, "An Adaptive Soft-Sensor for Non-Destructive Cement-Based Material Testing, through the Use of RBF Networks", **IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS)**, 2012, Madrid, Spain.

3.17 Ninos, K., C. Giannakakis, I. Kompogiannis, I. Stavrakas, A. Alexandridis, "Nonlinear Control of a

DC-motor based on radial basis function neural networks", **IEEE International Symposium on Innovations in Intelligent Systems and Applications (INISTA)**, 2011, Istanbul, Turkey.

3.18 Hloupis, G., Stavrakas, I., Moutzouris, K., Alexandridis, A., Triantis, D., WSN open source development platform: Application to green learning, **25th Eurosensors Conference**, 2011, Athens, Greece.

3.19 Alexandridis, A., L. Russo, D. Vakalis, C. Siettos, "Simulation of wildland fires in large-scale heterogeneous enviornments", **10th International Conference on Chemical & Process Engineering (ICheaP-10)**, 2011, Florence, Italy.

3.20 Hloupis, G., I. Stavrakas, A. Alexandridis, K. Moutzouris, D. Triantis, "Can open source electronics platforms be beneficial for early warning systems?", **European Geosciences Union General Assembly**, 2011, Vienna, Austria.

3.21 Alexandridis, A., H. Sarimveis, "Control of processes with multiple steady states using MPC and RBF neural networks", **European Symposium on Computer Aided Process Engineering (ESCAPE)** 21, 2011, Thessaloniki, Greece.

3.22 Retsina, T., S. Rutherford, P. Patrinos, H. Sarimveis, A. Alexandridis, "Neural network model-based paper machine marginal cost curves", **TAPPI Engineering Pulping Environmental Conference**, 2005, Philadelphia, PA.

3.23 Doganis, P., H. Sarimveis, A. Alexandridis, P. Patrinos, "Optimal production scheduling for dairy industries", **2nd Multidisciplinary International Conference on Scheduling: Theory & Applications (MISTA)**, 2005, New York, NY.

3.24 Sarimveis, H., E. Aggelogiannaki, A. Alexandridis., "A prioritized multiobjective MPC configuration using adaptive RBF networks and evolutionary computation", **16th IFAC World Congress**, 2005, Prague, Czech Republic.

3.25 Patrinos, P., A. Alexandridis, H. Sarimveis, A. Afantitis, O. Markopoulou, "Development of Nonlinear Quantitative Structure-Activity Relationships using RBF Networks and Evolutionary Computing", **European Symposium on Computer Aided Process Engineering (ESCAPE) 14**, 2004, Lisbon, Portugal.

3.26 Alexandridis, A., H. Sarimveis, G. Bafas, "Development of RBF neural network training algorithm using a non-symmetric partition of the input space", **6th Greek scientific conference of Chemical Engineering**, 2003, Patras, Greece.

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