

Nicholas S. Samaras

Curriculum Vitae

Professor

Department of Digital Systems
University of Thessaly

Senior Member IEEE

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Address

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University of Thessaly
Gaiopolis Campus
Larissa-Trikala Regional Road
415 00 Larissa, Greece

Education

PhD Electrical and Computer Engineering | University of Pittsburgh, Pittsburgh, Pennsylvania, USA | 1999

- Systems and Controls. Dissertation: "Optimization of Multistage Nonlinear Processes with Unknown System Disturbances".

MSc Electrical and Computer Engineering | The City College of the City University of New York, New York, USA | 1987

- Master's thesis: "Code Generation Algorithm Based on Triple-Connected Graphs".

BSc Electrical and Computer Engineering | The City College of the City University of New York, New York, USA | 1986

Teaching Experience

Institution	Position	Department or School	Period
University of Thessaly, Larissa, Greece	Professor	Department of Digital Systems	March 2002 - Present
San Jorge University, Zaragoza, Spain	Visiting Professor	School of Science and Engineering	Winter 2017 and Spring 2015
Staffordshire University and TEI of Thessaly, Larissa, Greece	Professor and MSc Program Director	MSc Computer Science	September 2005 - 2014
University of Southern Denmark, Odense, Denmark	Visiting Professor	School of Engineering	Spring 2009
University of Thessaly, Volos, Greece	Adjunct Lecturer (P.D. 407/80)	School of Agricultural Sciences - Department of Agriculture, Crop Production and Rural Environment	2003 - 2011
University of Thessaly, Volos, Greece	Adjunct Lecturer (P.D. 407/80)	School of Engineering - Department of Mechanical and Industrial Engineering	2005 - 2006
University of Pittsburgh, Pittsburgh, USA	Adjunct Professor	Department of Telecommunications	September 2000 - August 2002
University of Pittsburgh, Pittsburgh, USA	Adjunct Professor	Department of Electrical and Computer Engineering	September 2000 - August 2002

Doctoral and Master's Thesis Supervision

- Primary supervisor for doctoral dissertations: one completed and two in progress.
- Member of seven-member doctoral dissertation examination committees.
- Member of three three-member supervisory committees for doctoral dissertations in progress.
- Supervised ten completed master's theses.
- Supervised more than 100 completed undergraduate theses.

Industrial Experience

Senior Application Engineer and Automation Leader | *Danieli Automation, Pittsburgh, Pennsylvania, USA | January 1996 - April 2002*

- Lead engineer in the Applied Technology Department.
- Designed and developed innovative networked real-time automatic control systems for robotic mechanisms and mechanical systems in the metal-processing industry.
- Developed TCP/IP-based communication software.
- Applied simulation models to optimize system performance.

Systems and Automation Engineer | *AEG Westinghouse, Cegelec, Alstom, Pittsburgh, Pennsylvania, USA | October 1990 - December 1995*

- Researched and developed high-performance distributed automation systems (High Speed Distributed Controllers).
- Developed applications for industrial process regulators and motor drive controllers.
- Used models and simulation software to optimize systems.

Digital Drives Field Engineer | *General Electric, Roanoke, Virginia, USA | October 1987 - September 1990*

- Configured and commissioned digital drives.

Control Systems and Automation Design Engineer | *Tippins Incorporated, Pittsburgh, Pennsylvania, USA | October 1987 - September 1990*

- Developed analytical control methods for industrial applications.
- Designed high-speed microprocessor-based automation systems.
- 32-bit VME and OSI architecture.
- Programmed and implemented industrial automation systems.

Honors and Awards

Prize Paper Award | *IEEE Industry Applications Society | 1998*

- “Water-Cooled End-point Boundary Temperature Control of Hot Strip via Dynamic Programming”.

Certificate of Appreciation | *IEEE Communications Society | December 2008*

- For contributions to the development of the communications field and the IEEE Communications Society.

Certificates of Appreciation | *IEEE Industry Applications Society | 1998 - 2004*

- For presentations and participation in IEEE IAS conferences and service on the Metal Industry Committee.

Patents

US Patent Office Approval | *Patent application no. 684.240/10/06/2000*

- “Optimized temperature trajectory tracking of Runout Table (ROT) cooling process”.

Selected Publications in Peer-Reviewed International Journals

1. Bania, A., Iatrellis, O., & **Samaras, N.** (2026). FiReS: An agent based reasoning system for postdisaster response recommendations. *Natural Hazards*, 122(9), 374.
2. Drogkoula, M., **Samaras, N.**, Iatrellis, O., Kokkinos, K., & Nathanail, E. (2026). Benchmarking machine learning and ANFIS models for forecasting NDWI/MNDWI time-series as spectral proxies of surface water in Region of Thessaly, Greece. *Remote Sensing in Earth Systems Sciences*, 9(3), 46.
3. Iatrellis, O., Bania, A., **Samaras, N.**, Kosmopoulou, I., & Panagiotakopoulos, T. (2025). ChatGPT in doctoral supervision: Proposing a tripartite mentoring model for AI-assisted academic guidance. *International Journal of Doctoral Studies*, 20(9), 1-26.
4. Drogkoula, M., **Samaras, N.**, Iatrellis, O., Nathanail, E., & Kokkinos, K. (2025). Systematic review and topic classification of soft computing and machine learning in water resources management. *Discover Sustainability*, 6(1), 860.
5. O. Iatrellis, **N. Samaras**, K. Kokkinos, T. Panagiotakopoulos, “Leveraging Generative AI for Sustainable Academic Advising: Enhancing Educational Practices through AI-Driven Recommendations”, *Sustainability*, 2024; 16(17):7829. <https://doi.org/10.3390/su16177829>.
6. O. Iatrellis, **N. Samaras**, K. Kokkinos, “EDUC8EU: A Transformative Hybrid Academic Advising Approach with Intelligent Microservices, Fuzzy Logic and Semantic Web Technologies”, *Journal of Educational Sciences*, 2024; 20:4753-4761. <https://doi.org/10.52783/jes.6168>.
7. O. Iatrellis, **N. Samaras**, K. Kokkinos, C. Chaikalis, “Predictive Analytics in Education: Evaluating Machine Learning Methods for Student Dropout Prediction”, *Journal of Electrical Systems*, 2024; 20:3741-3750.
8. O. Iatrellis, **N. Samaras**, K. Kokkinos, “Towards a Capability Maturity Model for Micro-Credential Providers in European Higher Education”, *Trends in Higher Education*, 2024; 3(3):504-527. <https://doi.org/10.3390/higheredu3030030>.
9. O. Iatrellis, **N. Samaras**, K. Kokkinos, C. Chaikalis, “Green Perspectives: Future Technology Professionals' Views on Sustainability Practices”, *Preprints*, 2024. <https://doi.org/10.20944/preprints202405.2056.v1>.
10. A. Bania, O. Iatrellis, **N. Samaras**, T. Panagiotakopoulos, “FiReS: A Semantic Model for Advanced Querying and Prediction Analysis for First Responders in Post-Disaster Response Plans”, *International Journal of Disaster Risk Reduction*, 2024, Volume 109, 104592, ISSN 2212-4209. <https://doi.org/10.1016/j.ijdr.2024.104592>.
11. K. Kokkinos, **N. Samaras**, O. Iatrellis, “European Universities Best Practices: The Case of INVEST EU Alliance”, *European Scientific Journal*, 2024; 20:137. <https://doi.org/10.19044/esj.2024.v20n37p137>.
12. O. Iatrellis, **N. Samaras**, K. Kokkinos, A. Xenakis, “Elevating Academic Advising: Natural Language Processing of Student Reviews”, *Applied System Innovation*, 2024; 7(1):12. <https://doi.org/10.3390/asi7010012>.
13. P. Ipsilandis, K. Kokkinos, **N. Samaras**, “A Roadmap for European Universities Policy Recommendation to Achieve HEI Sustainability: The Case of INVEST EU Alliance”, *ESI Preprints*, 2024. <https://doi.org/10.19044/esipreprint.1.2024.p170>.
14. K. Kokkinos, **N. Samaras**, O. Iatrellis, “European Universities Best Practices: The Case of INVEST EU Alliance”, *ESI Preprints*, 2024; 25. <https://esipreprints.org/index.php/esipreprints/article/view/747>.
15. M. Drogkoula, K. Kokkinos, **N. Samaras**, “A Comprehensive Survey of Machine Learning Methodologies with Emphasis in Water Resources Management”, *Applied Sciences*, 2023; 13(22):12147. <https://doi.org/10.3390/app132212147>.
16. K. Kokkinos, V. Karayannis, **N. Samaras**, K. Moustakas, “Multi-Scenario Analysis on Hydrogen Production Development Using PESTEL and FCM Models”, *Journal of Cleaner Production*, 2023; Volume 419, 138251, ISSN 0959-6526. <https://doi.org/10.1016/j.jclepro.2023.138251>.

17. G. Papastergiou, A. Xenakis, C. Chaikalis, D. Kosmanos, P. Chatzimisios, **N. Samaras**, "Sensor Topology Optimization in Dense IoT Environments by Applying Neural Network Configuration", *Sensors*, 2023; 23(12):5422. <https://doi.org/10.3390/s23125422>.
18. O. Iatrellis, E. Stamatiadis, **N. Samaras**, "An Intelligent Expert System for Academic Advising Utilizing Fuzzy Logic and Semantic Web Technologies for Smart Cities Education", *Journal of Computational Education*, 2023; 10:293-323. <https://doi.org/10.1007/s40692-022-00232-0>.
19. O. Iatrellis, V. Kyriatzis, **N. Samaras**, C. Dervenis, "RES-Q: Toward Semantic Interoperability for Risk and Disaster Management in Smart Cities", in: P. Fitsilis (ed) *Building on Smart Cities Skills and Competences. Internet of Things*, Springer, Cham, 2022. https://doi.org/10.1007/978-3-030-97818-1_17.
20. J. Pittner, M. A. Simaan, **N. Samaras**, "Use of Advanced Control Techniques With Virtual Rolling to Improve Threading of the Tandem Cold Mill", *IEEE Transactions on Industry Applications*, 2021; 57(6):6722-6729. <https://doi.org/10.1109/TIA.2021.3109174>.
21. K Kokkinos, **N Samaras**, A Loukas, "Development and Evaluation of an Adaptive Neuro Fuzzy Inference System for the Calculation of Soil Water Recharge in a Watershed", *European Scientific Journal*, November 2015, Special Edition, ISSN: 1857-7881 (print) e-ISSN 1857-7431.
22. K Kokkinos, **N Samaras**, C Laspidou, A Loukas, "Modeling of Hydrological and Environmental Processes through OPENMI and WEB Services", *European Scientific Journal*, November 2015, Special Edition, ISSN: 1857-7881 (print) e-ISSN1857-7431.
23. **NS Samaras**, K Kokkinos, C Chaikalis, V Vlachos, "On intrusion detection in opportunistic networks", *International Journal of Innovation and Regional Development*, Inderscience Publishers, Switzerland, Vol. 6, No. 3, pp. 222-242, 2015.
24. C Chaikalis, **NS Samaras**, "A SCCC turbo decoder for DVB-T", *Cyber Journals: Multidisciplinary Journals in Science and Technology*, *Journal of Selected Areas in Telecommunications (JSAT)*, pp. 13-20, January 2012.
25. C Chaikalis, **NS Samaras**, "Novel results on 3G reconfigurable outer block interleaving based on FER", *Springer Academic Publishers Wireless Personal Communications Journal* (published online), DOI 10.1007/s11277009-9859-0.
26. J Pittner, **NS Samaras**, MA Simaan, "A New Strategy for Optimal Control of Continuous Tandem Cold Metal Rolling," *IEEE Transactions on Industry Applications*, vol. 46, No. 2, pp. 703-711, March/April 2010.
27. C Chaikalis, **NS Samaras**, "Service adaptable 3G turbo decoder for indoor/low range outdoor environment", *International Journal of Communications, Network and System Sciences*, Vol. 2, No. 8, pp. 704 - 713, November 2009, DOI 10.4236/ijcns.2009.28081.
28. **NS Samaras**, MA Simaan, "Optimal trajectory tracking of dynamic multistage ROT cooling process with stochastic disturbances," *IEEE Transactions on Industry Applications*, vol. 42, No. 3, pp. 844- 850, May/June 2006.
29. **NS Samaras**, MA Simaan, "Optimized trajectory tracking control with disturbance attenuation of dynamic multistage metalcooling processes," *IEEE Transactions on Industry Applications*, vol. 40, No. 4, pp. 926-931, July/August 2004.
30. **NS Samaras**, MA Simaan, "Optimized trajectory tracking control of multistage dynamic metal-cooling processes," *IEEE Transactions on Industry Applications*, vol. 37, No. 3, pp. 920-927, May/June 2001.
31. **NS Samaras**, MA Simaan, "Novel control structure for runout table coiling temperature control," *AISE Steel Technology*, Vol. 78, No. 6, pp. 55-59, June 2001.
32. **NS Samaras**, MA Simaan, "Water-cooled end-point boundary temperature control of hot strip via dynamic programming," *IEEE Transactions on Industry Applications*, vol. 34, No. 6, pp. 1335- 1341, November/December 1998.
33. **NS Samaras**, MA Simaan, "Two-point boundary temperature control of hot strip via water cooling," *ISA Transactions*, vol.36, No. 1, pp. 11-20, 1997.

Book Contributions

- **NS Samaras**, C Chaikalis, G Siafakas, “Healthcare oriented smart house for elderly or disabled people: A case study,” *Wireless Technologies for Ambient Assisted Living and Health Care: Systems and Applications*, IGI Global Publishers, September 2010.
- **NS Samaras**, MA Simaan, “Metals Industry,” *Wiley Encyclopedia of Electrical and Electronics Engineering*, J. G. Webster, Edt., vol.12. John Wiley & Sons, Inc., pp. 577-592, 1999.

Selected Presentations at Peer-Reviewed International Conferences

1. Iatrellis, O., Kosmopoulou, I., Panagiotakopoulos, T., & **Samaras, N. S.** (2026). A knowledgegrounded and generative framework for personalized academic advising. In 2026 IEEE Global Engineering Education Conference (EDUCON) (pp. 1-10). IEEE.
2. Iatrellis, O., **Samaras, N. S.**, Kosmopoulou, I., & Panagiotakopoulos, T. (2026). Classifying student course evaluations with ChatGPT: Exploring LLMs for educational quality assessment in engineering education. In 2026 IEEE Global Engineering Education Conference (EDUCON) (pp. 1-9). IEEE.
3. Iatrellis, O., Kosmopoulou, I., **Samaras, N.**, & Kokkinos, K. (2025). A holistic approach to academic advising through fuzzy logic, semantic web technologies, and expert reasoning in engineering education. In 2025 6th International Conference of the Portuguese Society for Engineering Education (CISPÉE). IEEE.
4. Iatrellis, O., Kosmopoulou, I., **Samaras, N.**, & Kokkinos, K. (2025). Educators' adoption and perceptions of generative AI tools in higher education. In 2025 6th International Conference of the Portuguese Society for Engineering Education (CISPÉE). IEEE.
5. Iatrellis, O., **Samaras, N.**, & Kokkinos, K. (2025). RES-Q: A holistic approach to semantic orchestration and AI-enhanced mobility. In *Climate crisis and resilient transportation systems: Proceedings of the 7th Conference on Sustainable Urban Mobility*. Springer.
6. O. Iatrellis, **N. Samaras**, A. Bania, K. Kokkinos, “Semantic Orchestration in Disaster Response (RES-Q),” CSUM 2024 Conference Proceedings, University of Thessaly, 2024. 4-6 September.
7. A. Bania, O. Iatrellis, **N. Samaras**, “Semantic AI for First Responders (FiReS),” CSUM 2024 Conference Proceedings, University of Thessaly, 2024. 4-6 September
8. M. Drogkoula, K. Kokkinos, O. Iatrellis, N. Samaras, “Flood Monitoring and Forecasting: Quantitative Approaches Using Satellite and Aerial Imagery,” CSUM 2024 Conference Proceedings, University of Thessaly, 2024. 4-6 September
9. O. Haralampous, **N. Samaras**, “Digital Twin Technology for Electric Bicycles: Optimization Using Smartphone Sensors and Weather Data,” CSUM 2024 Conference Proceedings, University of Thessaly, 2024. 4-6 September
10. O. Iatrellis, **N. Samaras**, K. Kokkinos, “Predictive Analytics in Education: Evaluating Machine Learning Methods for Student Dropout Prediction”, presented at the International Conference on Current Issues in Education, Vienna, Austria, August 7-8, 2024.
11. **N. Samaras**, O. Iatrellis, K. Kokkinos, “EDUC8EU: A Transformative Hybrid Academic Advising Approach with Intelligent Microservices, Fuzzy Logic, and Semantic Web Technologies”, presented at the International Symposium on Teaching, Education, and Learning (STEL-24), Washington D.C., USA, July 24-25, 2024.
12. K. Kokkinos, **N. Samaras**, O. Iatrellis, “Towards the Sustainability of European Universities: The Use Case of INVEST Alliance”, EDULEARN24 Proceedings, 2024, pp. 10586-10596. 1-3 July, 2024.
13. O. Iatrellis, **N. Samaras**, C. Dervenis, T. Panagiotakopoulos, “KONX: A Dynamic Approach for Explainable AI in Higher Education”, *Proceedings of the 7th International Conference on Algorithms, Computing and Systems (ICACS '23)*, 2024, Association for Computing Machinery, New York, NY, USA, pp. 118-124. <https://doi.org/10.1145/3631908.3631925>. October 19-21, 2023.

14. A. Bania, O. Iatrellis, **N. Samaras**, “Information Communication Technologies (ICTs) and Disaster Risk Management (DRM): Systematic Literature Review”, in: E.G. Nathanail, N. Gavanas, G. Adamos (eds) Smart Energy for Smart Transport, CSUM 2022, Lecture Notes in Intelligent Transportation and Infrastructure, Springer, Cham, 2023. https://doi.org/10.1007/978-3-031-23721-8_137. 31 August - 2 September
15. K. Kokkinos, O. Iatrellis, L. Timonen, **N. Samaras**, “Optimizing Urban Resilience via FCM and Participatory Modeling: The Case of Joensuu Finland”, in: E.G. Nathanail, N. Gavanas, G. Adamos (eds) Smart Energy for Smart Transport, CSUM 2022, Lecture Notes in Intelligent Transportation and Infrastructure, Springer, Cham, 2023. https://doi.org/10.1007/978-3-031-23721-8_140. 31 August - 2 September
16. O. Iatrellis, **N. Samaras**, A. Bania, “RES-Q: Self-evolving Post-disaster Response Plans Utilizing Semantics”, Conference on Natural Hazards and Infrastructure, ICONHIC, 2022. 5-7 July 2022, Athens, Greece.
17. C. Chaikalis, D. Kosmanos, **N. S. Samaras**, “Utilizing Turbo Codes for Secure 5G V2X”, 2020 IEEE Microwave Theory and Techniques in Wireless Communications (MTTW), Riga, Latvia, 2020, pp. 30-34. <https://doi.org/10.1109/MTTW51045.2020.9245035>. 1-2 October 2020
18. J Pittner, MA Simaan, and **NS Samaras**, “Improved Threading of the Tandem Cold Mill Using Advanced Control Techniques with Virtual Rolling”, accepted for presentation at the 2019 IEEE IAS Annual Meeting to be held in Baltimore, MD, USA, September 29 - October 3, 2019.
19. **Nicholas Samaras**, “An Integrated Decision Support System Based on Wireless Sensor Networks Applied in Precision Agriculture”, Proceedings of the Advances in Wireless and Optical Communication RTUWO 2018, Session A5, pp. 240-246, Riga, Latvia, November 15-16, 2018.
20. **Nicholas S. Samaras**, Foteini S. Triantari, “On Direct Diffusion Routing for Wireless Sensor Networks”, Proceedings of the Advances in Wireless and Optical Communication RTUWO 2016, Session N1, pp. 106-112, ISBN: 978-15090-1535-1, Riga, Latvia, November 3-4, 2016.
21. **Nicholas Samaras**, “Using Basic MANET Routing Algorithms for Data Dissemination in Vehicular Ad Hoc Networks (VANETs)”, Proceedings of the 24th Telecommunication Forum TELFOR 2016, Section 2.19, pp. 140-144, 978-1-5090-4085-8, Serbia, Belgrade, November 22-23, 2016.
22. K Kokkinos, A Loukas, **N Samaras**, C Laspidou, “Collaborative environmental modeling: a roadmap for integrated water resources management”, cest2015_00124, Session 22, Proceedings of the 14th International Conference on Environmental Science and Technology, 3-5 September 2015, Rhodes, Greece.
23. K Kokkinos, **N Samaras**, C Laspidou, A Loukas, “Modeling of Hydrological and Environmental Processes through OPENMI and WEB Services”, 3rd Global Academic Meeting, Session 7, ppr. 5, New York, September 17-19, 2015.
24. K Kokkinos, **N Samaras**, A Loukas, “Development and Evaluation of an Adaptive Neuro Fuzzy Inference System for the Calculation of Soil Water Recharge in a Watershed”, 3rd Global Academic Meeting, Session 3, ppr. 3, New York, September 17-19, 2015.
25. K Kokkinos, **N Samaras**, A Loukas, “An Integrated Modeling Architecture for the Monitoring of Lake Karla Watershed”, Fifth International Conference on Environmental Management, Engineering, Planning and Economics, (CEMEPE 2015) and SECOTOX Conference, June 14th - 18th , 2015 Mykonos Island, Greece.
26. K Kokkinos, A Loukas, **N Samaras**, “The Coupling of the Hydrological Models UTHBAL, UTHRL, MODFLOW and the Environmental Model PCLake under a Collaborative Modeling Framework for Water Resources Management of the Lake Karla Watershed”, Fifth International Conference on Environmental Management, Engineering, Planning and Economics, (CEMEPE 2015) and SECOTOX Conference, June 14th -18th , 2015 Mykonos Island, Greece.
27. **NS Samaras**, K Kokkinos, C Chaikalis, V Vlachos, “On Intrusion Detection in Opportunistic Networks,” in Panhellenic Conference on Informatics, pp. 67-74, ACM Proceedings, Thessaloniki, Greece, September 2013.
28. K Kokkinos, E Papadopoulos, **N Samaras**, K Chaikalis, “An Integrated Modeling Framework for Routing of Hazardous Materials,” in 21st IEEE International Conference on Collaboration Technologies and Infrastructures, 226-231, June 25 - 27, 2012, Toulouse, France.
29. K Kokkinos, **N Samaras**, A Loukas, “Integrated Modelling of Hydrological Processes through OpenMI and Web Services,” proceedings of the 5th International Conference on Information and Communication Technologies in Agriculture, Food and Environment”, HAICTA -2011, pp. 409-420.

30. K Chaikalis, **N Samaras**, "An improved 3GPP reconfigurable turbo decoder for flat Rayleigh fading channels", in International Conference on Telecommunications and Multimedia 2010 (TEMU 2010), ISBN: 978-960.88785-9-4, Session 1, No. 11, pp. 104-11, Chania, Greece, 14-16 July 2010.
31. K Chaikalis, **N Samaras**, "UMTS Dynamic Outer Interleaver Reconfiguration for Indoor Environment Using SOVA Turbo Decoder," in Proceedings of IEEE 5th International Conference on Wireless and Mobile Communications (ICWMC '09), Cannes, France, pp. 205- 210, 23-29 August 2009, DOI 10.1109/ICWMC.2009.42, ISBN 978-0-7695-3750-4.
32. K Chaikalis, **N Samaras**, "Novel Results on Adaptive UMTS Outer Block Interleaving Using SOVA Turbo Decoder", in Proceedings of IEEE 6th International Symposium on Wireless Communication Systems 2009 (ISWCS'09), Siena, Italy, pp. 363-367, 7-10 Sept. 2009, ISBN 978-1-4244-3584-5.
33. V Kyriatzis, **NS Samaras**, P Stavroulakis, H Takruri-Rizk, S Tzortzios, "ENVIROMOTE: A new solar-harvesting platform prototype for wireless sensor networks / work in progress report," The 18th Annual IEEE Symposium on Personal Indoor and Mobile Radio Communications (IEEE PIMRC), pp. 1-5, ISBN:978-1-4244-1144-3, Athens, Greece, September 2007.
34. J Pittner, **NS Samaras**, MA Simaan, "A novel approach for optimal control of continuous tandem cold metal rolling," Proceedings of the 2007 IEEE Industry Applications Society Conference, IEEE Catalog Number: 07C1137909C, ISBN: 1-4244-1260-9, ISSN: 0197-2618, New Orleans, LA, USA, September 2007.
35. V Kyriatzis, **NS Samaras**, H Takruri-Rizk, O Iatrellis, D Kalfountzos, S Tzortzios, "Intelligent Irrigation Scheduling System Employing Wireless Sensor Networks Technology", Proceedings of the International Conference on Information Systems in Sustainable Agriculture Agro environment and Food Technology, Set: 960-8029-42-2, ISBN:960-8029-43-0, Vol. 1, Session 1, pp. 1-8, September 2006, Volos, Greece.
36. **NS Samaras**, N Batis, "On Optimization of Multicast Routing Communication Networks", Proceedings of the 2006 International Conference on Telecommunications and Multimedia, ISBN: 960-88785-2-7, vol. 2, Session 3, pp. 112-119, July 2006, Crete, Greece.
37. V Kyriatzis, **NS Samaras**, H Takruri-Rizk, "Wireless Sensor Network-Based Decision Support and Control System for Precision Agriculture," Proceedings of the 3rd International Symposium on Intelligent Information Technology in Agriculture (ISIITA), Part Two, GIS, GPS, RS and Precision Farming, pp. 159164, October 2005, Beijing, China.
38. **NS Samaras**, MA Simaan, "Optimal and efficient solutions in the presence of time-correlated disturbances for trajectory tracking control of dynamic multistage ROT cooling process," Proceedings of the 2004 IEEE Industry Applications Society Conference, vol.1, Session 5, pp. 208-215, Seattle, WA, USA, October 2004.
39. **NS Samaras**, MA Simaan, "Optimized trajectory tracking control of dynamic multistage metalcooling processes with nonlinear disturbances," Proceedings of the 2002 IEEE Industry Applications Society Conference, vol.1, Session 4, pp. 150-156, Pittsburgh, PA, USA, October 2002.
40. J. Pittner, **NS Samaras**, MA Simaan, "A simple rolling mill model with linear quadratic optimal controller," Proceedings of the 2002 IEEE Industry Applications Society Conference, vol.1, Session 4, pp. 142-149, Pittsburgh, PA, USA, October 2002.
41. **NS Samaras**, MA Simaan, "Optimized trajectory tracking control of multistage dynamic processes," Proceedings of the 2000 IEEE Industry Applications Society Conference, vol.4, pp. 2654-2661, Rome, Italy, October 2000.
42. **NS Samaras**, MA Simaan, "A novel control structure for coiling temperature control of runout table," Proceedings of the 2000 AISE Annual Convention, Rolling and Finishing - Flat Products Session, pp.1-10, Chicago, USA, September 2000.
43. **NS Samaras**, MA Simaan, "Water-cooled end-point boundary temperature control of hot strip via dynamic programming," Proceedings of the 2000 IEEE Industry Applications Society Conference, vol.4, pp. 2654-2661, New Orleans, USA, October 1997.

Research Projects

Role	Project	Funding or Program	Period
Principal Investigator	Innovations of Regional Sustainability European University Alliance 1	ERASMUS+ INVEST 1	2020 - 2023
Principal Investigator	INVEST4EXCELLENCE	HORIZON	2021 - 2023
Principal Investigator	Innovations of Regional Sustainability European University Alliance 2	ERASMUS+ INVEST 2	2023 - 2027
Principal Investigator	Development of an integrated system for monitoring, simulation, and management of water resources - Lake Karla	ARCHIMEDES III, Ministry of Education	2012 - 2015
Principal Investigator	Study and development of a wireless sensor network for precision agriculture	ARCHIMEDES II, EPEAEK II	2005 - 2007
Research Team Member	Implementation of a quality assurance system for training in organic food retail	Leonardo da Vinci, ECOQUALIFY III	2010 - 2011
Member of the University of Thessaly Technical Support Team	Development of Metropolitan Broadband Networks in Thessaly		2005 - 2007
Research Team Member	Communication networks in distributed systems	Greece-Czech Republic Scientific Cooperation, GSRT	2006 - 2008
Research Associate	Improvement of digital design and manufacturing processes using CNC	ARCHIMEDES I, EPEAEK II	2004 - 2006
Research Associate	Development of optical biomedical technology methods for the circulatory system of the eye	ARCHIMEDES I, EPEAEK II	2004 - 2006
Research Associate	Strengthening International Relations Offices	European Training Foundation, Tempus Joint European Project UM JEP 23029	2002

Authored Educational Materials

- **Nicholas S. Samaras**, “Networks I: Lecture Notes”, 2nd edition, Larissa, 2005.
- **Nicholas S. Samaras** and Omiros Iatrellis, “Networks II: Lecture Notes”, 2nd edition, Larissa, 2007.
- Stergios I. Tzortziou and **Nicholas S. Samaras**, “Introduction to Computers and Programming”, University of Thessaly Lecture Notes, 2nd edition, Volos, 2005.
- Stergios I. Tzortziou and **Nicholas S. Samaras**, “Computer Applications”, University of Thessaly Lecture Notes, 1st edition, Volos, 2006.
- **Nicholas S. Samaras**, “Study for the Development of Computer Network Laboratories”, Larissa, 2005.

Other Academic Activities

Role	Organization or Activity	Period
Keynote Speaker	NICE-TEAS EUROPE 2026, 2nd Networking International Conference on Emerging Trends in Expert Applications and Security	2026
Associate Editor	European Scientific Journal	2015 - 2020
Erasmus Program Coordinator	University of Southern Denmark, Denmark; St. George University, Spain; University of Reims Champagne-Ardenne, France; University of Milano-Bicocca, Italy; University of Lubeck, Germany; Slovak University of Agriculture, Slovakia; Georgian American University, Georgia; Karelia University of Applied Sciences, Finland; University of Agrobusiness and Rural Development, Bulgaria; Van Hall Larenstein, Netherlands.	
Chair, Paper Review Committee	Industry Applications Society, IEEE	2004 - 2009
Steering Committee Member	IEEE WETICE	2010
Conference Program Chair and Coordinator	37th IEEE IAS Conference	2002
Research Paper Reviewer	IEEE, HDMI - Algorithms, Applied Sciences, Sustainability; International Journal of Computers and Applications; Control Engineering Practice; Sensors	
Member of Organizing or Scientific Committees	Various Greek and international conferences	

Administrative Activities

Position	Institution	Period
Department Chair	Department of Computer Engineering, TEI of Thessaly	2003 - 2008
MSc Program Director	Master in Computer Science, Staffordshire University and TEI of Thessaly	2004 - 2014
Head of the Networks and Telecommunications Division	Department of Computer Engineering, TEI of Thessaly	2003 - 2004 and 2008 - 2019
Chair, Internal Evaluation Committee	Department of Computer Engineering, TEI of Thessaly	2014 - 2017
Chair, Curriculum Committee	Department of Computer Engineering, TEI of Thessaly	2004 and 2008
Coordinator for the Development of Networks and Telecommunications Laboratories	Department of Computer Engineering, TEI of Thessaly	2006
Chair, Undergraduate Thesis Committee	Department of Computer Engineering, TEI of Thessaly	2003 - 2008

Programming, Simulation, and Real-Time Operating Systems

MATLAB high-performance numeric computation and visualization language, C, C++, Visual Basic, PLC programming, Windows VB Script Language, HTML, PLM, PASCAL, 68K Assembly, NS-3, COMNET III, OMNET++, CISCO Configmaker, VxWorks real-time operating systems, OS-9 Microware real-time operating systems, Altera Max Plus II.

Membership in Professional and Scientific Societies

- Senior Member of the Institute of Electrical and Electronics Engineers (IEEE).
- Association of Iron and Steel Engineers (AISE).