

Curriculum Vitae

Name	Spyridon Nikolaidis
Position	Professor Research Area: Design and Analysis of Digital Electronic Circuits
Studies	<ul style="list-style-type: none"> • PhD in Electrical Engineering, Department of Electrical Engineering, University of Patras (1994) • Diploma in Electrical Engineering, Department of Electrical Engineering, University of Patras (1988)
Scientific Experience	<ul style="list-style-type: none"> • Faculty Member, Department of Physics, 1996–present • Tutor, Hellenic Open University, 2003–2017 • Fellowship, Department of Electrical Engineering & Computer Science, Technical University of Dresden, Germany, July 2023 • Member of the Editorial Board of the MDPI journals <i>Technologies</i>, <i>Electronics</i>, and <i>JLPEA</i> • Member of the IEEE Cellular Nanoscale Networks and Memristor Array Computing (CNN-MAC) Technical Committee • Member of the IEEE Nanoelectronics and Gigascale Systems (NANO-GIGA) Technical Committee • Founder and Organizer of the annual International Conference on Modern Circuits and Systems Technologies (MOCASST) since 2012 • Organizer of the International Conference on Power, Automation, Timing, Modeling and Simulation (PATMOS) 2017 • Organizer of the International Conference on Electronics, Circuits and Systems (ICECS) 2026 • Member of the Organizing Committee of international conferences (ICECS 1999, PATMOS 2018, IFIP VLSI-SoC 2008, Memrisys 2017, PACET) • Organizer of four Special Sessions at international conferences • Guest Editor of Special Issues in scientific journals • Editor of the journal <i>ISRN Electronics</i> (2011–2014) • Invited speaker at universities abroad • Three distinctions/awards for papers presented at international conferences • Scientific Coordinator for research projects (European and National) at Aristotle University of Thessaloniki (AUTH) • Member of the Management Committee for Greece in the European COST Action IC1401, <i>Memristor: Devices, Models, Circuits and Applications</i> (2014–2018) • Reviewer for scientific journals and conferences
Research Activities	<ul style="list-style-type: none"> • 75 publications in peer-reviewed international journals • 156 publications in the proceedings of international conferences • Co-author of 3 chapters in scientific books published in foreign languages • More than 1,463 citations to his research work (Scopus) • Translation and editorial supervision of 3 scientific textbooks • Co-author of a university textbook on Electronic Laboratory Exercises • Supervision of 6 completed PhD dissertations and 3 ongoing doctoral theses • Supervision of 46 Master’s thesis projects • Supervision of 52 undergraduate thesis projects
Administrative Activities	<ul style="list-style-type: none"> • Director of the Sector of Electronics & Computer Engineering for the academic years 2011–2013, 2015–2017, and 2019–2021 • Director of the MSc Program in Electronic Physics (Radioelectronics) for the

	<p>periods 2018–2020 and 2020–2022</p> <ul style="list-style-type: none"> • Chair of the Operational Planning Committee • Member of departmental committees
<i>Research Interests</i>	<ul style="list-style-type: none"> • Development of analytical models describing the operation of CMOS logic gates, including propagation delay and power consumption • Development of methods for estimating the power consumption of digital circuits • Development of models for describing processor power consumption • Design of high-speed and low-power VLSI circuits • Design of safety critical digital circuits • Design of application-specific processors and reconfigurable processors • Development of acoustic methods for detecting and localizing leaks in fluid transport pipelines
<i>Major Scientific Publications (last 5 years)</i>	<ol style="list-style-type: none"> 1. Ioannis Sofianidis, Vassileios Konstantakos, Spyridon Nikolaidis, "Reducing energy consumption in embedded systems applications, <i>Technologies</i> 2025, 13(2), 82; https://doi.org/10.3390/technologies13020082 2. N. F. Karagiorgos, S. G. Stavrinides, C. d. Benito, S. Nikolaidis and R. Picos, "Unconventional Security for IoT: Hardware and Software Implementation of a Digital Chaotic Encrypted Communication Scheme," <i>in IEEE Internet of Things Journal</i>, vol. 11, no. 11, pp. 19914-19925, 1 June1, 2024, doi: 10.1109/JIOT.2024.3371091. 3. G.P. Kousiopoulos, S. Nikolaidis, "Study of Parameter Configuration on an Embedded System Used for Acoustic Leak Localization in Metallic Pipelines", <i>Electronics</i> 2023, 12(8), 1793; https://doi.org/10.3390/electronics12081793 4. G.P. Kousiopoulos, D. Kampelopoulos, N. Karagiorgos, G.N. Papastavrou, V. Konstantakos, S. Nikolaidis, "Acoustic Leak Localization Method for Pipelines in High-Noise Environment Using Time-Frequency Signal Segmentation," <i>IEEE Transactions on Instrumentation and Measurement</i>, vol. 71, pp. 1-11, 2022, Art no. 9600211, doi: 10.1109/TIM.2022.3150864. 5. Dimitrios Kampelopoulos, George-Napoleon Papastavrou, Nikolaos Karagiorgos, George-Panagiotis Kousiopoulos, Dimitrios Porlidas, Vasileios Konstantakos, Spyridon Nikolaidis, " A Statistical Approach for Leak Monitoring of Highly Noisy Metallic Pipelines," <i>IEEE Transactions on Instrumentation and Measurement</i>, vol. 71, pp. 1-12, 2022, Art no. 1006112, doi: 10.1109/TIM.2022.3197796.