

Maria Drakaki

Associate Professor

Department of Automation Engineering

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Education

Ph.D. 1992 Department of Physics, University of Texas at Austin, Austin, TX, U.S.A.

M.Sc. 2004, VLSI System Design, University of Westminster, London, U.K.

B.Sc. 1986 Department of Physics, Aristotle University of Thessaloniki, Greece

Academic and Professional Positions

Associate Professor, Department of Automation Engineering, Alexander Technological Educational Institute of Thessaloniki (2014-present)

Lecturer (Contract), Department of Automation Engineering and Department of Electronic Engineering, Alexander Technological Educational Institute of Thessaloniki (1994-2013)

Researcher/Scientific coordinator, national and European research programs (1993-2007)

Graduate Research Assistant, Department of Physics, University of Texas at Austin (1988-1992)

Graduate Teaching Assistant, Department of Physics, University of Texas at Austin (1989-1992)

Honors and Awards

Fulbright Scholarship (1987)

State Scholarships Foundation - Pre-graduate Scholarships for Higher Education, for academic record achievement (1984-1986)

Tuition Scholarship, Physics Department, University of Texas at Austin, (1987).

Best Paper Award, 38th International Conference on Information Systems Architecture and Technology – ISAT 2017, September 17-19, Szklarska Poręba, Poland.

Publications - Journals

1. M. Drakaki, and P. Tzionas, "Community based social partnerships in crisis resilience: a case example in Greece", *Disaster Prevention and Management*, vol. 26, No. 2, 2017, pp. 203-216
2. M. Drakaki, and P. Tzionas, " Manufacturing Scheduling Using Colored Petri Nets and Reinforcement Learning", *Applied Sciences*, vol. 7, No. 2, 2017, article no. 136
3. M. Drakaki, and P. Tzionas, "Modeling and performance evaluation of an agent-based warehouse dynamic resource allocation using Colored Petri Nets", *International Journal of Computer Integrated Manufacturing*, vol. 29, No. 7, 2016, pp. 736-753
4. Drakaki, M., Siskos, S., Hatzopoulos, A., "A 0.5-20 GHz bandwidth enhanced distributed amplifier", *Microelectronic Engineering*, vol. 90, 2012, pp. 26-28
5. Drakaki, M., Siskos, S., Hatzopoulos, A., "A De-Embedding method for RF CMOS Inductor Measurements ", *Microelectronics Journal*, vol. 40, 2009, pp. 958-965
6. Drakaki, M., Siskos, S., Hatzopoulos, A., "A Comparative Evaluation of De-Embedding Methods for on-wafer RF CMOS Inductor S-parameter Measurements", *Physica Status Solidi, C, Current Topics in Solid State Physics*, Vol 5, No. 12, 2008, pp. 3671-3676
7. Noulis T., Drakaki, M., Siskos, S., "Complete Analysis of BSIM3V3 Noise Models for the optimum design of a low noise preamplifier", *Journal of Physics, Conference Series*, Vol. 10, No. 1, 2005, pp. 369-372
8. Pecz B., Zekendes K., Drakaki, M., Barna P., Stoemenos J., "Epitaxially grown β -SiC on Si, interface structural characterization", *Journal of the Mechanical Behaviour of Materials*, Vol. 6, 59 (1995).
9. Araya-Pochet, J.A., Chen J., Drakaki M., Erskine, J.L., "Magneto-optical studies of ultrathin epitaxial films", *Journal of Physics: Condensed Matter*, 5, A191 (1993)
10. Chen J., Drakaki M., Erskine, J.L., "Chemisorption-induced change in thin-film spin anisotropy: Oxygen adsorption on the p(1x1) Fe/Ag(100) system", *Physical Review B*, 45, 3636 (1992)

1.3.2 Publications - Conferences (selected) :

1. Drakaki, M. Goren, H. G. Tzionas, P.: An Intelligent Multi-Agent System using Fuzzy Analytic Hierarchy Process and Axiomatic Design as a Decision Support Method for Refugee Settlement Siting. In: *Proceedings of ICDSST-PROMETHEE 2018. Lecture Notes in Business Information Processing LNBIP*. Springer (2018).

2. Drakaki, M., Karnavas, Y.L., Chasiotis, I.D., Tzionas, P., An Intelligent Multi-Agent System Framework for Fault Diagnosis of Squirrel-Cage Induction Motor Broken Bars. In: Świątek J., Borzemski L., Wilimowska Z. (eds) Proceedings of 38th International Conference on Information Systems Architecture and Technology – ISAT 2017. Advances in Intelligent Systems and Computing 656. Springer, Cham, (2018). (Best paper award).
3. Y. Karnavas, A. Topalidis and M. Drakaki, "Development of a Low Cost Brushless DC Motor Sensorless Controller Using dsPIC30F4011", 7th International Conference on Modern Circuits and Systems Technologies, MOCAST, 2018.
4. Isaakidis, G., Spiropoulos, A., Drakaki, M., "A Wireless Three Dimensional Printer for Printed Circuit Board Applications" 4th Panhellenic Conference on Electronics and Communications, PACET, 2017.
5. Giannopoulos, G., Drakaki, M., "Design and manufacture of voice distortion device in real time", 2nd International Workshop on Microsystems, 2017.
6. M. Drakaki, G. Kovacs, and P. Tzionas, "The logistics role in community resilience: a case example of a community based social partnership in Greece, 6th International Symposium and 28th National Conference in Operational Research, HELORS, 2017.
7. Isaakidis, G., Spiropoulos, A., Drakaki, M., "An Educational Purpose Built Three Dimensional Printer" 6th International Conference on Modern Circuits and Systems Technologies, MOCAST, 2017.
8. D. Bechtsis, M. Drakaki, and D. Vlachos, "Using Agent-Based Modeling for the Design of Agrifood Supply Chains with Emergency Replenishments", 1st International Conference of Agrifood Supply Chain Management and Green Logistics, May 2015, pp. 421-430.
9. Perissis Eleftherios, Petridis Ioannis, and M. Drakaki, "Wireless Bluetooth Control Module for a DC Motor", 2nd Panhellenic Conference on Electronics and Communications, PACET, 2012.
10. Drakaki, M., Hatzopoulos, A., Siskos, S., "Improved Calculation of Differentially Driven RF CMOS Inductor Model Parameters", Design of Circuits and Integrated Systems, DCIS, 2007, pp. 76-80.
11. Drakaki, M., Hatzopoulos, A., Siskos, S., "Improving the Quality Factor Estimation for differentially Driven RF CMOS Inductors", European Conference on Circuit Theory and Design, ECCTD, 2007, pp. 599-602.
12. Drakaki, M., Hatzopoulos, A., Siskos, S., "CMOS Inductor Performance Estimation using Z- and S-parameters ", IEEE ISCAS International Symposium Circuits Systems, ISCAS, 2007, pp. 2256-2259.
13. Drakaki, M., Hatzopoulos, A., Siskos, S., Papakostas D., "Comparison of RF Inductor Parameter Evaluation Methods ", International Conference on Electronics, Hardware, Wireless and Optical Communications, EHAC, 2007, pp. 35-39.

14. Drakaki, M., Hatzopoulos, A., Siskos, S., "Improving the Accuracy of the De-embedding Methods for on-wafer RF Measurements ", Design of Circuits and Integrated Systems, DCIS, 2006.
15. Drakaki, M., Fikos, G., Siskos, S., "Analog Signal Processing Circuits using Floating Gate MOS Transistors ", 5th International Conference on Technology and Automation, ICTA, 2005, pp.322-327.
16. Drakaki, M., Fikos, G., Siskos, S., "Subthreshold Behaviour Modeling of FGMOS Transistors using the ACM and the BSIM3V3 Models", 12th IEEE Mediterranean Electrotechnical Conference, MELECON, 2004, pp. 55-58.
17. M. Drakaki, L. Berkovi, I. Kale, and S. Siskos, "Non-Quasi-Static Transient Analysis Modeling of the Floating Gate MOS Transistor", *Second International Conference on Microelectronics, Microsystems and Nanotechnology*, MMN 2004, Nov. 2004, Athens, Greece.
18. Chen J., Drakaki M., Erskine, J.L., "Magnetic anisotropy of Epitaxial Fe Thin Films on Ag(100)", Bulletin of the American Physical Society, 36, 677 (1991).
19. Chen J., Drakaki M., Ballentine, C.A., Erskine, J.L., "SMOKE Investigation of Ultrathin Fe Films Epitaxially Grown on W(100)", Bulletin of the American Physical Society 35, 199 (1990).

Citations

Over 70 citations.

Research

Intelligent manufacturing systems, decision support systems, supply chain management, agent-based manufacturing control systems, Colored Petri Nets, humanitarian logistics.

Teaching

Supply chain management and control, Digital Systems, Electronics (2017-18)

Academic Administrative Position

Academic Departmental Coordinator Erasmus+ (2016-today)

Vice-President, Department of Automation Engineering (Dec. 2017-today)