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Professional experience		
Period from-to	Employer/Institution	Position
2012-now	University of Birjand, Birjand, Iran	Teacher and Researcher
2021	University of Rome “Tor Vergata,” Rome, Italy	Visiting Researcher
2019	Faculty of Ferdows Technical, University of Birjand, Birjand, Iran	Founder of Smart Home Research Center
2012-2019	Faculty of Ferdows Technical, University of Birjand, Birjand, Iran	Head of Electronic Laboratory
2016- 2020	Engineering System Organization, Birjand, Iran	Official Electronic Designer and Supervisor

Education			
Period (from-to)	University or institution	Degree or qualification	Subject
2018-2023	University of Birjand, Birjand, Iran.	PHD	Design, Simulation and Fabrication of 200 W High Efficiency Power Amplifier Using GaN HEMT Transistors for S Band Applications
2009-2011	University of Birjand, Birjand, Iran.	MSc	Using of Machine Learning Algorithms for Gene Sequence Clustering
2004- 2009	Shahid Bahonar University of kerman, Kerman, Iran.	BSc	Design and Simulation of a E-Class Power Amplifier

Teaching experience		
Period (from-to)	University or institution	Course taught
2010 - now	Faculty of Ferdows Technical, University of Birjand, Birjand, Iran	Electronics I & II Linear Control Systems Electrical circuits I & II Digital Systems Engineering Probability Physics of Electricity Electronics circuits, Electronics Laboratory courses and.....

Description of the most important projects	
Short description of project	position/ role in the project
Smart Home project, Ferdows, South Khorasan	Leader of research group
Design and fabrication of an S-band driver for wireless applications	Co-designer

Main topics of research
Circuits, Power Amplifiers, Machine Learning Algorithms, Antennas and Propagations, Internet of Things (IOT)

Membership in professional societies and academic committees, and position	
Society/committee	Position
Hooshmand-Sanaat Arian Company (2015-now).	President
Smart Home Research Center laboratory- Ferdows Faculty of Engineering	President

SKILLS
Software Experience in: ADS, MATLAB, PSPICE, ISE
Fluent in English
Smart Home Designer
Designer of Electrical Drawings of Building

Published Works:

Journals:

- [1] **M. Soruri**, P. Livreri, "Efficiency Improvement of a 10 W GaN HEMT Power Amplifier Based on Hidden Markov Model Optimized by Particle Swarm Optimization Algorithm for Wireless Application," The Journal of Engineering, Vol. 1, pp. 1-7, 2025.
- [2] M. Alibakhshikenari, P. Parand, B. S. Virdee, I. G. Zuazola, S. Kumar, A. Zidour, **M. Soruri**, T.Saber, M.N.Moghadasi, E.Limiti, "Advanced wideband antenna arrays for 5G millimeter-wave spectrum at K-and Ka-bands," IntechOpen, 2025.
- [3] N.A. Abbasi, B.S. Virdee, I.U. Din, S. Ullah, A.A. Althuwayb, N. Rashid, **M. Soruri**, C.H. See, M.Alibakhshikenari, "High-Isolation Array Antenna Design for 5G mm-Wave MIMO Applications", J Infrared Milli Terahz Waves, vol. 46, no. 12, 2024.

- [4] **M. Soruri**, S. M. Razavi, M. Forouzanfar, and P. Colantonio, "Design and fabrication of a GaN HEMT power amplifier based on hidden Markov model for wireless applications," *Plos one*, vol. 18, no. 5, p. e0285186, 2023.
- [5] **M. Soruri**, S. Razavi, and M. Forouzanfar, "Design and Optimizing of a GaN HEMT Power Amplifier Based on the Inclined Planes System Optimization Algorithm for Wireless Applications," *Iranian Journal of Electrical and Electronic Engineering*, vol. 18, no. 3, pp. 2369-2369, 2022.
- [6] A. Bijari, S. Zandian, **M. Soruri**, S. Abbasi Avval, M. Harifi-Mood. "A new approach to multi-objective optimization of a tapered matrix distributed amplifier for UWB applications". *Neural Computing and Applications*. Nov 2023, pp: 1-15.
- [7] E.M. Ali, M. Alibakhshikenari, B.S. Virdee, **M. Soruri**, E. Limiti, "Efficient Wireless Power Transfer via Magnetic Resonance Coupling Using Automated Impedance Matching Circuit", *Electronics*, November 2021, Volume 10, Issue 22.
- [8] A.S Elkorany, A.N Mousa, S. Ahmad, D.A. Saleeb, A. Ghaffar, **M. Soruri**, M. Dalarsson, M. Alibakhshikenari, E. Limiti, "Implementation of a Miniaturized Planar Tri- Band Microstrip Patch Antenna for Wireless Sensors in Mobile Applications", *Sensors*, Jan 2022, Volume 22, Issue 2.
- [9] W.A. Awan, **M. Soruri**, M. Alibakhshikenari, E. Limiti, "On-Demand Frequency Switchable Antenna Array Operating at 24.8 and 28 GHz for 5G High-Gain Sensors Applications", *Progress In Electromagnetics Research M*, Feb. 2022, Volume 108, pp: 163-173.
- [10] **M. Soruri**, J. Sadri and S.H. Zahiri, "Gene Clustering With Hidden Markov Model Optimized by PSO Algorithm", *Pattern Analysis and Applications (PAAA)*, November 2018, Volume 21, Issue 4, pp:1121-1126.
- [11] M. Alibakhshikenari, E.M. Ali, **M. Soruri**, M. Dalarsson, M.N. Moghadasi, B.S. Virdee, C. Stefanovic, A.P. Dabrowska, S. Koziel, S. Szczepanski, E. Limiti, "A comprehensive survey on antennas on-chip based on metamaterial, metasurface, and substrate integrated waveguide principles for millimeter-waves and terahertz integrated", *IEEE Access*, Jan 2022, Volume 10, pp: 3668 – 3692.
- [12] M. Alibakhshikenari, B.S. Virdee, H. Benetatos, E.M. Ali, **M. Soruri**, M. Dalarsson, M. Naser-Moghadasi, C.H. See, A. Pietrenko-Dabrowska, S. Koziel, S. Szczepanski, "An innovative antenna array with high inter element isolation for sub-6 GHz 5G MIMO communication systems". *Scientific Reports*. May 2022, Volume 12, pp: 7901-7907.
- [13] S. Ahmad, S. Khan, B. Manzoor, **M. Soruri**, M. Alibakhshikenari, M. Dalarsson, F. Falcone. "A compact CPW-fed ultra-wideband multi-input-multi-output (MIMO) antenna for wireless communication networks", *IEEE Access*. Mar 2022, Volume 10, pp: 25278-89.

Conference:

- [1] **M. Soruri**, M. Alibakhshikenari, P. Livreri, "A novel Approach to Optimize GaN HEMT Power Amplifier with Gray Wolf Optimization Algorithm for Wireless Application", 2024 17th United Conference on Millemetre Waves and Terahertz Technologies (UCMMT), pp. 1-4, Palermo, Italy, August 21–24, 2024. doi: 10.1109/UCMMT62975.2024.10737760.
- [2] A. Zidour, M. Ayad, M. Alibakhshikenari, B. Guenad, **M. Soruri**, and L. Kouhalvandi, "Dual-Band Endfire Phased Array Antenna for mmWave 5G NR Bands Applications", 27th International Workshop on Smart Antennas (WSA), pp. 1-4, Dresden, Germany, March 17– 19, 2024. doi: 10.1109/WSA61681.2024.10512236
- [3] A.I. Anwer, M. Alibakhshikenari, T.A. Elwi, B.S. Virdee, L. Kouhalvandi, Z.A. Abdul Hassain, **M. Soruri**, N.T. Tokan, N.O. Parchin, C.H. See, P. Livreri, "Minkowski Based Microwave Resonator for Material Detection over Sub-6 GHz 5G Spectrum", In 2023 2nd International Conference on 6G Networking (6GNet), IEEE, France, Paris, October 2023.

- [4] R.k. AbdulSattar, M. Alibakhshikenari, T.A. Elwi, L. Kouhalvandi, Z.A. Abdul Hassain, B.S. Virdee, **M. Soruri**, N.T. Tokan, N.O. Parchin, C.H. See, P. Livreri, I. Dayoub, S. Aïssa, E. Limiti, "Metamaterial based sensor using fractal Hilbert structure for liquid characterization", In 2023 International Conference on Electromagnetics in Advanced Applications (ICEAA), IEEE, Italy, Venice, October 2023.
- [5] SM. Jarchavi, N. Hussain, **M. Soruri**, M. Alibakhshikenari, F. Arpanaei, C. Stefanovic, BS. Virdee, "A high-gain quasi-fractal antenna with wide range operation for 5G applications over V-band spectrum", In 2022 IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications (APWC), IEEE, South Africa, Cape town, September 2022, pp: 099-102.
- [6] Morteza. Soruri, **M. Soruri**, "The usage of transistors power amplifiers in electropneumatic systems", Fourth National Conference on New Technologies in Electrical, Computer and Mechanical Engineering of Iran", Higher education complex of bam, Iran, Tehran, September 2021.
- [7] **M. Soruri**, S. M. Razavi, M. Forouzanfar, "Efficiency improvement of a GaN HEMT Power Amplifier with Envelope Tracking technique in L-Band", The 6th National Conference of Applied Researches in Electrical, Mechanical and Mechatronics Engineering, Malek Ashtar University of Technology, Iran, Tehran, September 2020.
- [8] **M. Soruri**, "A survey of data clustering methods using the hidden Markov model algorithm", The 6th National Conference of Applied Researches in Electrical, Mechanical and Mechatronics Engineering, Malek Ashtar University of Technology, Iran, Tehran, September 2020.
- [9] **M. Soruri**, J. Sadri and S.H. Zahiri, "Hidden Markov Model Optimized by PSO Algorithm for Gene Sequence Clustering", Second International Conference on Internet of Things, data and cloud computing, Cambridge University, UK, March 2017.
- [10] **M. Soruri**, J. Sadri and S.H. Zahiri, "A New Approach of Training Hidden Markov Model by PSO Algorithm for Modeling of Biological Sequences", The first Iranian Conference on Pattern Recognition and Image Analysis (PRIA 2013). Iran, Birjand, March 2013.
- [11] **M. Soruri**, T. Nazmi, "Investigating the Impact of Online Store Features on Customers' and E-commerce Intentions in Iran", 4th National Conference on Information Technology, Computer and Telecommunication, Iran, Torbat Heydariyeh, 2017.
- [12] **M. Soruri**, A. Salari, "Designing and Implementing Home Automation with a New Approach", 4th National Conference on Information Technology, Computer and Telecommunication, Iran, Torbat Heydariyeh, 2017.
- [13] J. Sadri, **M. Soruri** and F. Jafarian, "New method for human DNA sequencing using HMM and overlap and save method", HGM 2011, UAE, March 2011.
- [14] **M. Soruri**, S.M. Razavi, "A New Method for Data Clustering Using Gray Wolf Optimization Algorithm", Fourth National Conference on Applied Research in Electrical Engineering, Mechanics and Information Technology, Iran, Shiraz, October 2018.
- [15] **M. Soruri**, M. Haghighat, "Development of smart inverters to improve the local active power generated in power distribution networks", 7th Iranian joint Congress of Fuzzy and Intelligent Systems, Iran, Bojnourd, Jan 2019.
- [16] **M. Soruri**, "A new Method of Training Hidden Markov Model Using Gray Wolf Optimization for Modelling of Gene Sequence", 3th International Conference on Soft Computing, Iran, Rasht, Nov. 2019.

