Curriculum Vitae

Masoumeh Nasiri-Kenari

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Research Interest:

Various areas of Wireless Communications including:

- Nano-networks and Molecular Communications
- Smart Radio Environments and Reconfigurable AI Meta Surface
- Green Communications
- Cooperative and Cognitive Communications
- Wireless Body Area Networks

Education:

Ph.D. in Electrical Engineering, 1994
University of Utah, U.S.A
Dissertation: Coding and Signaling for Input Constraint Channel
Thesis advisor: Prof. Craig, K, Rushforth,

M.Sc. in Electrical Engineering (Communications), 1988
Isfahan University of Technology, IRAN
Dissertation: Adaptive Clutter Cancellation in Radar
Thesis Advisor: Prof. Golestani

B.S. in Electrical Engineering (Electronics), 1986
Isfahan University of Technology, IRAN

Professional Experience:

Academic Position

- **Professor**, Elec. Eng. Dept., *Sharif University of Technology*, 2004- Present
- **Associate Professor**, Elec. Eng. Dept., *Sharif University of Technology*, 2000-2004
- **Assistant Professor**, Elec. Eng. Dept., *Sharif University of Technology*, 1994- 2000
- **Technical Instructor**, Elec. Eng. Dept., *Isfahan University of Technology*, 1988-1989

Other Affiliation and Roles

- **Area Editor of IEEE Trans. on Communications**, 2022-present
- **Editor of IEEE Trans. on Communications,** *Molecular Communications and Cognitive radio*, 2014-2022
- **Editor of IEEE Trans. on MBMC**, 2016-2022
- **Member (Minister representative) of assessment and promotion committee,** *Tehran University,* Aug. 2017-present
- **Associate Member of Electrical and Computer Engineering Group,** *Iran Academic of Science, Engineering branch***,** 2022-present
- **Invited Member of Electrical and Computer Engineering Group,** *Iran Academic of Science, Engineering branch***,** 2018-2022
- **Member of Women in Engineering task group,** *Iran Academic of Science, Engineering branch,* 2015-present
- **Member of Women Research Promotion work group,** *Iran National Science Foundation, 2018-present*
- **Member of EE Department Assessment and Promotion Committee**, *Sharif University of Technology*, 2003-Present
- **Member of University Assessment and Promotion Committee**, *Sharif University of Technology*, 2003-2010, and 2014-present
- **Member of EE Department Hiring Committee**, *Sharif University of Technology*, Sept. 2006-present
- **Member of University Honor Students Affairs Committee**, *Sharif University of Technology*, Sept. 2003- 2007
- **Director of Center of Excellence in Communications**, *Sharif University of Technology*, Sept. 1997- 2001
- **Director of Mobile Communication Group**, *Advanced Communication Research Center (ACRI), Sharif University of Technology*, 2004-present
- **Vice-President of Graduate education Affairs**, *Elec. Eng. Department, Sharif University of Technology*, June 2004-2006 and June 2010-June 2011
- **Member of INSF Engineering Committee/Workgroup,** Jan. 2012- Present
- **Member of Engineering Committee, National Elites Foundation**, 2012-2013
- **Director of Telecommunication Group**, *EE. Dept., Sharif Univ. of Technology*, 1998-2002
- **Director of Wireless Research Lab.**, *EE Dept., Sharif Univ. of Technology*, 1999-present
- **Director of Mobile Test Lab.**, *EE Dept., Sharif Univ. of Technology*, 2009-Present:
- **Co-Director of Advanced and Wideband CDMA Lab at Iran Telecom Research Center (ITRC)**, 1999-June 2001
- **Chair of Women in Engineering (WIE) Committee, IEEE Iran Section,** Jan. 2013-2016

Awards

- **The Esteemed Hakkak Award from the IEEE Iran Section** (for outstanding and lifetime contribution to research in Communications Engineering), 2022.
- **Distinguished professor in engineering from Iran Academy of Science,** 2018.
- **The 2014 Premium Award for Best Paper in IET Communications** (for the best research papers published during last two years)
- **Distinguished Researcher of EE Department**, *Sharif University of Technology*, 2005
- **Distinguished Lecturer of EE Department**, *Sharif University of Technology*, 2007
- **Distinguished Scientist of Mazandaran Province**, *Mazandaran Governor*, 2010

Grants and Funded Research (in Last 8 years)

- **INSF International Research chair on Nano Communication Networks**, for 5 years starting Sept. 2015 (Rials 3,000,000,000)
- **Green Communication in Multi-Relay Wireless Networks**, (total $90000) for 2015-2017, Swedish Research Council
- **Molecular Communications**, ($10000), 2013 Viterbi School of Engineering Research Innovation Fund Grant, University of Southern California, USA
- **Cooperative Communications for Wireless Communications**, (Rials 400,000,000), SUT, 2004-2007
- **Cognitive Communications and Resource Allocations**, (Rials 450,000,000), SUT, 2008-2012
- **Design of DS-CDMA Receivers**, (Rials 500,000,000), SAIRAN, 2009-2010
- **Efficient Modulation and Detection for UWB Communications**, (Rials 250,000,000), INSF, 2003-2005
- S**pectrum Sensing at low SNR Regime** (Rials 500,000,000), Advanced Data Corp. 2005-2006
- **Establishing a Test lab. for wireless Mobile Communication**, (Rials 23,000,000,000), ITRC, 2007-2012

Ph.D Thesis Supervised:

- "**Information theoretic analysis of smart radio environment,**" Ali Haji Abdollahi Bafghi, 2022.
- "**Medium-Based Communication and Modulation in Molecular Communication Networks,**" Maryam Farahnak-Ghazani, 2021.
- "**Modeling and Analysis of Random clustered networks**," Seyed Mohammad Azimi, 2020.
- "**Multiple access techniques for 5G wireless networks**," Fatemeh Mokhtari, 2019.
- "**Efficient Methods for Transmission and Reception of Information in Molecular Communication Systems**," Reza Mosayebi, 2018.
- "**Capacity bounds on Molecular Communications,**" Gholamali Aminian, 2017.
- "**Harnessing Interference in Cooperative and Cognitive Communication Networks**" Mohsen Hejazi, 2016.

- "**Information Transfer in Molecular Bio-Nano Communication Networks**," Hamidreza Arjmandi, 2016.
- "**Interference Management in Two Tier Femtocell Networks**," Azam Sadat Hosseinzadeh-Salati, 2015.
- "**Multiple Access Schemes for Infrared Wireless Network with Diffusion Links**," Mazda Hamdi, 2013.
- "**Information Theoretic Analysis of Cognitive Radio Networks**", Hossein Charmchi, 2012.
- "**Cooperative Communication in Free-Space Optical Networks**", Mehdi Karimi, 2011.
- "**Performance Analysis of Ultra-Wide Band (UWB) Communication with a Relay Node**", Zolfa Zeinalpour-Yazdi, 2010.
- "**Spectrum Sensing in Cognitive Radio Networks**", Abbas Taherpour, 2009.
- "**Coded Cooperative Communications**", Azizollah Jamshidi, 2007.
- "**Advanced Coding and Decoding Schemes for Optical CDMA Communication Systems**", Paeiz Azmi, 2002.
- "**Multiuser Detection in DS/CDMA Systems Using Artificial Intelligence**," Mahrokh G. Shayesteh, 2002.

Current Ph.D. Students

- Arian Abbasian
- Mohammadjavad Zakavi

More than 50 M.Sc. Thesis Supervised

More than 20 invited Talks and Workshops: in different national conferences in electrical engineering, and in industries and universities**.**

Selected Invited talks and Tutorials:

- "**Molecular Communications: Opportunities and Challenges"**, ICEE 2017, Iran
- "**An Introduction on Molecular Communications**", Iran Academy of Science, 2015
- "**On Bounded Memory Decoders for Molecular Communications**", ITA 2014, San Diego, USA
- "**Diffusion Based Molecular Communications: Efficient Modulator and simple near optimal Decoder**", EE Department, USC, 2014, USA
- "**Diffusion Based Molecular Communications**", IWCIT 2014, Tehran, IRAN
- "**Cognitive Radio**", ICEE, 2013, Mashhad, IRAN
- "**Cooperative and Cognitive Communications**", SUT, 2012
- "**UWB Communications**", SUT, 2009
- Talk on **"Women in Engineering: Opportunities and Challenges**" in several places including in Iran Academy of Science

Courses lectured:

Coding theory, Advanced Communication Theory, Digital Signal Processing, Signals and Systems, Probability and Statistics, Communications, Seminar for M.Sc.

Publications

Book:

- Chapter entitled **"***Cyclostationary Spectrum Sensing in Cognitive Radios at Low SNR Regimes*," written by M. Derakhshani, M. Nasiri-Kenari, and Le-Ngoc, in book, "*Software-Defined and Cognitive Radio Technologies for Dynamic Spectrum Access and Management*", Published by IGI Global 2014.
- Chapter entitled "*A serendipitous journey*," of the book "*Rising to the Top*," Global women engineering leaders, vol. III, 2022, please see the electronic version attached.

Refereed Journals

1. H. Amiriara, F. Ashtiani, M. Mirmohseni, and M. Nasiri-Kenari, "IRS-User Association in IRS-Aided MISO Wireless Networks: Convex Optimization and Machine Learning Approaches," IEEE Transactions on Vehicular Technology, 2023.
2. A. H. Abdollahi Bafghi, V. Jamali, M. Mirmohseni, and M. Nasiri-Kenari, "Degrees of Freedom of the Wireless X-Network Assisted by Intelligent Reflecting Surfaces," IEEE Open Journal of the Communications Society, 2023.
3. H. Abin, A. Gohari, and M. Nasiri-Kenari, "A Study of Chemical Reactions in Point-to-Point Diffusion-Based Molecular Communication," IEEE Access, 2023.
4. A. Etemadi, M. Farahnak-Ghazani, H, Arjmandi, M. Mirmohseni, and M. Nasiri-Kenari, "Abnormality Detection and Localization Schemes using Molecular Communication Systems: A Survey," IEEE Access, 2022.
5. L Khaloopour, M Mirmohseni, and M Nasiri-Kenari, "Joint Sensing, Communication and Localization of a Silent Abnormality Using Molecular Diffusion," IEEE Internet of Things Journal, 2022.
6. S. Ghiasvand, A. Nasri, A. H. Abdollahi Bafghi, and M Nasiri-Kenari, "MISO Wireless Localization in The Presence of Reconfigurable Intelligent Surface," arXiv preprint arXiv:2208.09546, 2022.
7. A. H. Abdollahi Bafghi, M. Mirmohseni, and M. Nasiri-Kenari, "Degrees of Freedom of a K-User Interference Channel in the Presence of an Instantaneous Relay," Entropy, 2022
8. M. Farahnak-Ghazani, M. Mirmohseni, and M .Nasiri-Kenari, "Interference Alignment Using Reaction in Molecular Interference Channels," IEEE Transactions on NanoBioscience, 2022.
9. M. C. Gursoy, M. Nasiri-Kenari, and U. Mitra, "Towards high data-rate diffusive molecular communications: A review on performance enhancement strategies," Digital Signal Processing, 2022.

10. A. Nasri, A. H. A. Bafghi, and M Nasiri-Kenari, "Wireless Localization in The Presence of Intelligent Reflecting Surface," IEEE Wireless Communications Letters, 2022.
11. A. H. A. Bafghi, V. Jamali, Masoumeh Nasiri-Kenari, and Robert Schober, "Degrees of Freedom of the K-User Interference Channel Assisted by Active and Passive IRSs," IEEE Transactions on Communications, 2022.
12. H. Abin, A. Gohari, and M. Nasiri-Kenari, "An analytical model for molecular communication over a non-linear reaction-diffusion medium," IEEE Transactions on Communications, 2021.
13. M. C. Gursoy, M. Nasiri-Kenari, and U. Mitra, "Towards high data-rate diffusive molecular communications: A review on performance enhancement strategies," Digital Signal Processing, 2021.
14. A. Amerizadeh, A. Mashhadian, M. Farahnak-Ghazani, H. Arjmandi, M. Alsadat Rad, A. Shamloo, M. Vosoughi, and M. Nasiri-Kenari, "Bacterial Receiver Prototype for Molecular Communication Using Rhamnose Operon in a Microfluidic Environment," IEEE Transactions on NanoBioscience, 2021.
15. L Khaloopour, M Mirmohseni, M Nasiri-Kenari, "Theoretical Concept Study of Cooperative Abnormality Detection and Localization in Fluidic-Medium Molecular Communication," IEEE Sensors Journal, 2021.
16. M. Farahnak-Ghazani, M. Mirmohseni, and M. Nasiri-Kenari, "On molecular flow velocity meters," accepted at the *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*, IEEE, 2020
17. S. M. Azimi-Abarghouyi, M. Nasiri-Kenari, and M. Debbah, "Stochastic design and analysis of user-centric wireless cloud caching networks," *IEEE Transactions on Wireless Communications*, 2020.
18. S. Aeenehz, N. Zlatanovz, A. Gohari, M. Nasiri-Kenari,and M. Mirmohseni,"Timing modulation for macro-scale molecular communication," *IEEE Wireless Communications Letters*, 2020.
19. A. H. A. Bafghi, M. Mirmohseni, F. Ashtiani, and M. Nasiri-Kenari, "Joint optimization of power consumption and transmission delay in a cache-enabled c-ran," *IEEE Wireless Communications Letters*, 2020.
20. L. Khaloopour, S. V. Rouzegar, A. Azizi, A. Hosseinian, M. Farahnak-Ghazani, N. Bagheri, M. Mirmohseni, H. Arjmandi, R. Mosayebi, and M. Nasiri-Kenari, "An experimental platform for macro-scale fluidic medium molecular communication," *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*, vol. 5, no. 3, pp. 163–175, 2019.
21. N. Ghoroghchian, M. Mirmohseni, and M. Nasiri-Kenari, "Abnormality detection and monitoring in multi-sensor molecular communication," *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*, vol. 5, no. 2, pp. 68–83, 2019.
22. L. Khaloopour, M. Mirmohseni, and M. Nasiri-Kenari, "Adaptive release duration modulation for limited molecule production and storage," *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*, vol. 5, no. 2, pp. 139–152, 2019.
23. E. Sadeghabadi, S. M. Azimi-Abarghouyi, B. Makki, M. Nasiri-Kenari, and T. Svensson, "Asynchronous downlink massive mimo networks: A stochastic geometry approach," *IEEE Transactions on Wireless Communications*, vol. 19, no. 1, pp. 579– 594, 2019.

24. F. Mokhtari, M. R. Mili, F. Eslami, F. Ashtiani, B. Makki, M. Mirmohseni, M. Nasiri-Kenari, and T. Svensson, "Download elastic traffic rate optimization via noma protocols," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 1, pp. 713– 727, 2018.
25. H. G. Bafghi, A. Gohari, M. Mirmohseni, G. Aminian, and M. Nasiri-Kenari, "Diffusion-based molecular communication with limited molecule production rate," *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*, vol. 4, no. 2, pp. 61–72, 2018.
26. H. Ghourchian, G. Aminian, A. Gohari, M. Mirmohseni, and M. Nasiri-Kenari, "On the capacity of a class of signal- dependent noise channels," *IEEE Transactions on Information Theory*, vol. 64, no. 12, pp. 7828–7846, 2018.
27. S. M. Azimi-Abarghouyi, B. Makki, M. Nasiri-Kenari, and T. Svensson, "Stochastic Geometry Modeling and Analysis of Finite Millimeter Wave Wireless Networks," *IEEE Transactions on Vehicular Technology*, 2018
28. M. Farahnak-Ghazani, G. Aminian, M. Mirmohseni, A. Gohari, and M. Nasiri-Kenari, "On Medium Chemical Reaction in Diffusion-Based Molecular Communication: a Two-Way Relaying Example," *IEEE Transactions on Communications*, 2018
29. S. M. Azimi-Abarghouyi, B. Makki, M. Haenggi, M. Nasiri-Kenari, and T. Svensson, "Stochastic geometry modeling and analysis of single-and multi-cluster wireless networks," *IEEE Transactions on Communications*, 2018
30. R. Mosayebi, A. Ahmadzadeh, W. Wicke, V. Jamali, R Schober, and M. Nasiri-Kenari, "Early Cancer Detection in Blood Vessels Using Mobile Nanosensors," *IEEE Transactions on Nanobioscience*, 2018
31. R Mosayebi, V Jamali, N Ghoroghchian, R Schober, and M Nasiri-Kenari, "Cooperative abnormality detection via diffusive molecular communications," *IEEE transactions on nanobioscience*, 16 (8), 828-842, 2017
32. R. Mosayebi, A. Gohari, M. Mirmohseni, and M. Nasiri-Kenai, "Type Based Sign Modulation and its Application for ISI mitigation in Molecular Communication", *IEEE Trans. Communications*, 66 (1), 2017
33. M. Haghifam, MR Mili, B. Maki, M. Nasiri-Kenai, T. Swenson, "Joint Sum Rate and Error Probability Optimization: Finite Block length Analysis," *IEEE Wireless Communications Letters*, 2017
34. B. Maki, C. Fang, T. Swenson, M. Nasiri-Kenai, and M. Zorzi, "Delay Sensitive Area Spectral Efficiency: A Performance Metric for Delay Constrained Green Networks, *IEEE Trans. Communications*, 2017
35. **A. Gohari, M. Mirmohseni, M. Nairi-Kenari, "Information Theory of Molecular Communications: Directions and Challenges ," IEEE TMBMC, 2016** (**Invited paper**)
36. H. Arjmandi, M Movahednasab, A. Gohari, M. Nasiri-kenari, and F. Fekri, "On ISI Avoiding Modulations for Diffusion-based Molecular Communication," *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*, 2016.
37. S. M. Azimi-Abarghouyi, M. Hejazi, B. Makki, M. Nasiri-Kenari, and T. Svensson, "Decentralized Compute-and-Forward for Ad Hoc Networks," *IEEE Wireless Communications Letters*, 2016.

38. H. Arjmandi, A. Ahmadzadeh, R. Schonberg, and M. Nasiri-Kenari, “Ion Channel Based Bio-Synthetic Modulator for Diffusive Molecular Communication,” *IEEE Trans. Nanobioscience*, 2016
39. S. M. Azimi-Abarghouyi, M. Nasiri-Kenari, B. Maham, and M. Hejazi, "Integer Forcing-and-Forward Transceiver Design for MIMO Multi-Pair Two-Way Relaying," *IEEE Transactions on Vehicular Technology*, 2018.
40. M. Movahednasab, M. Soleimanifar, A. Gohari, M. Nasiri-Kenari, and U. Mitra, "Adaptive Transmission Rate with a Fixed Threshold Decoder for Diffusion-Based Molecular Communication," *IEEE Transactions on Communications*, vol. 64, no. 1, pp. 236-248, Jan. 2016.
41. G. Aminian, H. Arjmandi, A. Gohari, M. Nasiri-Kenari, and U. Mitra, "Capacity of Diffusion-Based Molecular Communication Networks Over LTI-Poisson Channels," *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*, vol. 1, no. 2, pp. 188-201, June 2015.
42. S. M. Azimi-Abarghouyi, M. Hejazi, and M. Nasiri-Kenari, "Compute-and-forward two-way relaying,” *IET Communications*, vol. 9, no. 4, pp. 451-459, 3 5 2015.
43. F. Sheikholeslami, M. Nasiri-Kenari, and F. Ashtiani, "Optimal Probabilistic Initial and Target Channel Selection for Spectrum Handoff in Cognitive Radio Networks," *IEEE Transactions on Wireless Communications*, vol. 14, no. 1, pp. 570-584, Jan. 2015.
44. M. Hejazi, S. m. Azimi-Abarghouyi, B. Makki, M. Nasiri-Kenari, and T. Svensson, "Robust Successive Compute-and-Forward over Multi-User Multi-Relay Networks," *IEEE Transactions on Vehicular Technology*, 2015.
45. G. Aminian, M. Farahnak-Ghazani, M. Mirmohseni, M. Nasiri-Kenari, and F. Fekri, "On the Capacity of Point-to-Point and Multiple-Access Molecular Communications with Ligand-Receptors," *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*, vol. 1, no. 4, pp. 331-346, Dec. 2015.
46. B. Makki, T. Svensson, T. Eriksson, and M. Nasiri-Kenari, "On the Throughput and Outage Probability of Multi-Relay Networks With Imperfect Power Amplifiers," *IEEE Transactions on Wireless Communications*, vol. 14, no. 9, pp. 4994-5008, Sept. 2015.
47. R. Mosayebi, H. Arjmandi, A. Gohari, M. Nasiri Kenari, and U. Mitra, “Receivers for Diffusion Based Molecular Communication: Exploiting Memory and Sampling Rate,” *IEEE Journal on Selected Areas in Communications, Vol. 32, no. 12, pp. 2368 - 2380*, 2014.
48. A. Karbalay-Ghareh, M. Nasiri-Kenari, and M. Hejazi, “Convolutional Network-Coded Cooperation in Multi-Source Networks with a Multi-Antenna Relay,” *Wireless Communications, IEEE Transactions on*, Vol. 13, no. 8, pp. 4323 - 4333, 2014.
49. A. Salaty and M. Nasiri-Kenari, “Aggregate Interference Modeling and Static Resource Allocation in Closed and Open Access Femtocells,” Communications, *IET*, Vol. 7, no. 8, pp. 1007 - 1016, 2014.

50. H. Arjmandi, A. Gohari, M. Nasiri Kenari, and F. Bateni, "Diffusion-Based Nanonetworking: A New Modulation Technique and Performance Analysis," *Communications Letters, IEEE* , vol.17, no.4, pp.645,648, April 2013.
51. M. Hejazi and M. Nasiri-Kenari, "Simplified compute-and-forward and its performance analysis," *Communications, IET*, vol.7, no.18, pp.2054,2063, December 17, 2013.
52. H. Shokri-Ghadikolaei, F. Sheikholeslami, and M. Nasiri-Kenari, "Distributed Multiuser Sequential Channel Sensing Schemes in Multichannel Cognitive Radio Networks," *Wireless Communications, IEEE Transactions on,* vol. PP, pp. 1-13, 2013.
53. H. Charmchi, G. A. Hodtani, and M. Nasiri-Kenari, "A New Outer Bound for a Class of Interference Channels with a Cognitive Relay and a Certain Capacity Result," *Communications Letters, IEEE,* vol. 17, pp. 241-244, 2013.
54. H. Shokri-Ghadikolaei, Y. Abdi, and M. Nasiri-Kenari, "Analytical and learning-based spectrum sensing time optimisation in cognitive radio systems," *Communications, IET*, vol. 7, pp. 480-489, 2013.
55. S. Ayoughi, M. Nasiri-Kenari, and B. Hossein Khalaj, "On Degrees of Freedom of the Cognitive MIMO Two Interfering Multiple Access Channels," *Vehicular Technology, IEEE Transactions on,* vol. PP, pp. 1-1, 2013.
56. Z. Zeinalpour-Yazdi, M. Nasiri-Kenari, and B. Aazhang, "Performance of UWB Linked Relay Network with Time-Reversed Transmission in the Presence of Channel Estimation Error," *Wireless Communications, IEEE Transactions on,* vol. 11, pp. 2958-2969, 2012.
57. H. Shokri-Ghadikolaei and M. Nasiri-Kenari, "Sensing matrix setting schemes for cognitive networks and their performance analysis," *Communications, IET,* vol. 6, pp. 3026-3035, 2012.
58. A. Sharifi, F. Ashtiani, H. Keshavarz, and M. Nasiri-Kenari, "Impact of Cognition and Cooperation on MAC Layer Performance Metrics, Part I: Maximum Stable Throughput," *Wireless Communications, IEEE Transactions on,* vol. 11, pp. 4252-4263, 2012.
59. M. Karimi and M. Nasiri-Kenari, "Free Space Optical Communications via Optical Amplify-and-Forward Relaying," IEEE *Lightwave Technology, Journal of,* vol. 29, pp. 242-248, 2011.
60. M. Derakhshani, T. Le-Ngoc, and M. Nasiri-Kenari, "Efficient Cooperative Cyclostationary Spectrum Sensing in Cognitive Radios at Low SNR Regimes," *Wireless Communications, IEEE Transactions on,* vol. 10, pp. 3754-3764, 2011.
61. Z. Zeinalpour-Yazdi, M. Nasiri-Kenari, and B. Aazhang, "Bit error probability analysis of UWB communications with a relay node," *Wireless Communications, IEEE Transactions on,* vol. 9, pp. 802-813, 2010.
62. A. Taherpour, M. Nasiri-Kenari, and S. Gazor, "Multiple antenna spectrum sensing in cognitive radios," *Wireless Communications, IEEE Transactions on,* vol. 9, pp. 814-823, 2010.
63. M. Karimi and M. Nasiri-Kenari, "Outage analysis of relay-assisted free-space optical communications," *Communications, IET,* vol. 4, pp. 1423-1432, 2010.

64. S. Golrezaei-Khuzani and M. Nasiri-Kenari, "Orthogonal frequency division multiple access-based cognitive radio networks with relaying capability," *Communications, IET,* vol. 4, pp. 395-409, 2010.
65. H. Charmchi and M. Nasiri-Kenari, "Achievable rates with quantised channel state information in a multiple-access channel with one cognitive transmitter," *Communications, IET,* vol. 4, pp. 1373-1380, 2010.
66. Z. Zeinalpour-Yazdi, M. Nasiri-Kenari, B. Aazhang, J. Wehinger, and C. F. Mecklenbrauker, "Bounds on the delay-constrained capacity of UWB communication with a relay node," *Wireless Communications, IEEE Transactions on,* vol. 8, pp. 2265-2273, 2009.
67. A. Taherpour, S. Gazor, and M. Nasiri-Kenari, "Invariant wideband spectrum sensing under unknown variances," *Wireless Communications, IEEE Transactions on,* vol. 8, pp. 2182-2186, 2009.
68. F. S. Tabataba and M. Nasiri-Kenari, "Internally coded time-hopping coherent ultra-short light pulse code division multiple access scheme with optical amplifier and its performance analysis using additive noise model," *Communications, IET,* vol. 3, pp. 75-82, 2009.
69. M. G. Shayesteh and M. Nasiri-Kenari, "Multiple-Access Performance Analysis of Combined Time-Hopping and Spread-Time CDMA System in the Presence of Narrowband Interference," *Vehicular Technology, IEEE Transactions on,* vol. 58, pp. 1315-1328, 2009.
70. M. Karimi, M. Nasiri-Kenari, F. S. Tabataba, and S. M. Aghajanzadeh, "Multistage decoding for an internally coded fibre-optic time-hopping/optical code division multiple access communication system," *Communications, IET,* vol. 3, pp. 655-665, 2009.
71. M. Karimi and M. Nasiri-Kenari, "An internally coded TH/OCDMA scheme for fiber optic communication systems and its performance analysis-part II: using frame time hopping code," *Communications, IEEE Transactions on,* vol. 57, pp. 50-55, 2009.
72. M. Karimi and M. Nasiri-Kenari, "BER Analysis of Cooperative Systems in Free-Space Optical Networks," *Lightwave Technology, Journal of,* vol. 27, pp. 5639-5647, 2009.
73. A. Taherpour, S. Gazor, and M. Nasiri-Kenari, "Wideband spectrum sensing in unknown white Gaussian noise," *Communications, IET,* vol. 2, pp. 763-771, 2008.
74. M. G. Shayesteh and M. Nasiri-Kenari, "Internally coded multicarrier frequency-hopping CDMA communication system and its performance analysis," *Communications, IET,* vol. 2, pp. 255-265, 2008.
75. A. Jamshidi and M. Nasiri-Kenari, "Performance Analysis of Transmitter-Side Cooperation–Receiver-Side-Relaying Schemes for Heterogeneous Sensor Networks," *Vehicular Technology, IEEE Transactions on,* vol. 57, pp. 1548-1563, 2008.
76. A. Taherpour, Y. Norouzi, M. Nasiri-Kenari, A. Jamshidi, and Z. Zeinalpour-Yazdi, "Asymptotically optimum detection of primary user in cognitive radio networks," *Communications, IET,* vol. 1, pp. 1138-1145, 2007.
77. F. S. Tabataba, S. M. Aghajanzadeh, M. Nasiri-Kenari, and M. Karimi, "Performance Analysis of Internally Coded Time-Hopping Coherent Ultrashort Light Pulse CDMA

Scheme in Fiber-Optic Communication Systems," IEEE *Lightwave Technology, Journal of,* vol. 25, pp. 1095-1106, 2007.
78. A. Nezampour, M. Nasiri-Kenari, and M. G. Shayesteh, "Internally coded TH--UWB--CDMA system and its performance evaluation," *Communications, IET,* vol. 1, pp. 225-232, 2007.
79. M. Karimi and M. Nasiri-Kenari, "An Internally Coded TH/OCDMA Scheme for Fiber Optic Communication Systems and Its Performance Analysis—Part I: Using Optical Orthogonal Code," *Communications, IEEE Transactions on,* vol. 55, pp. 333-344, 2007.
80. A. Jamshidi, M. Nasiri-Kenari, Z. Zeinalpour, and A. Taherpour, "Space-frequency coded cooperation in OFDM multiple-access wireless networks," *Communications, IET,* vol. 1, pp. 1152-1160, 2007.
81. Z. Zeinalpour-Yazdi and M. Nasiri-Kenari, "Performance analysis and comparisons of different ultra-wideband multiple access modulation schemes," *Communications, IEE Proceedings-,* vol. 153, pp. 705-718, 2006.
82. M. Nasiri-Kenari and M. G. Shayesteh, "Performance analysis and comparison of different multirate TH-UWB systems: uncoded and coded schemes," *Communications, IEE Proceedings-,* vol. 152, pp. 833-844, 2005.
83. A. R. Forouzan, M. Nasiri-Kenari, and N. Rezaee, "Frame time-hopping patterns in multirate optical CDMA networks using conventional and multicode schemes," *Communications, IEEE Transactions on,* vol. 53, pp. 863-875, 2005.
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