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ACADEMIC BACKGROUND

Postdoctoral Researcher, University of Padova, Italy, Sep. 2013 -Aug. 2014

Research Title: Radio resource management in the cognitive radio networks.

Supervisor: Prof. Michele Zorzi

Ph.D. in Electrical Engineering, **University of Tehran**, Tehran, Iran, 2012

Thesis Title: Distributed source and network code design for wireless communications

Supervisor: Dr. Farshad Lahouti

Visiting Researcher, Polytechnic Institute of New York University, Jun. 2011-Feb 2012

Research Title: Distributed source coding with uncertain side information

Host: Dr. Elza Erkip

M.Sc. in Electrical Engineering, **University of Tehran**, Tehran, Iran, 2001.

Thesis Title: Improvement of power control algorithm in CDMA cellular system.

Supervisors: Dr. Mahmoud Kamarei & Dr. HamidReza Jamali

B.Sc. in Electrical Engineering, **Sharif University of Technology**, Tehran, Iran, 1998.

Thesis Title: Analysis and design of the converter of base-band GSM mobile.

Supervisor: Dr. Mahmoud Tebyani.

RESEARCH INTERESTS

Joint source and channel coding, Network coding, Distributed source coding, Cross layer design and optimization, Network information theory, Resource management, Cognitive radio networks, Interference management, Game theory, Machine learning, Optimization, Radio network planning and optimization, Device to Device communication, Internet of things, Wireless communication, 5G networks.

PUBLICATIONS

1. S. Nikmanesh, M. Akbari, R. Joda, "A proactive context-aware self-healing scheme for 5G using Machine Learning", International Journal of Information and Communication Technology Research, Sep 2018.

2. S. *Nikmanesh*, M. Akbari, R. Joda, "Proactive self-healing analysis- framework based on discrete-Time Markov Decision Process", IEEE international Symposium on Telecommunications, Tehran, Iran, Dec. 2018.

3. J. *Rostampoor*, M. Dindoost, R. Joda, "Business model Canvas for micro Operators Operating in 5G coopetitive ecosystem", under review in Telecommunication systems.

4. M. *Moltafet*, R. Joda, N. Mokari, M.R. Sabagh and M. Zorzi, "Joint access and fronthaul radio resource allocation in PD-NOMA based 5G networks enabling dual connectivity and COMP", IEEE Transactions on Communications, , vol. 66, no. 12, pp. 6463-6477, Sep. 2018.

5. M. *Moltafet*, N. Mokari, R. Joda, M.R. Sabagh and M. Zorzi, "Joint access and fronthaul resource allocation in dual connectivity and CoMP based networks", IEEE ICC 2018.

6. M. *Moltafet*, N. Mokari, R. Joda, and M. Zorzi, "Joint access and fronthaul radio resource allocation in PD-NOMA Based 5G networks enabling dual connectivity and COMP", IEEE Tran. Wireless Commun, vol. 66, no. 12, pp. 6463-6477, Sep. 2018.

7. M. Moltafet, N. Mokari, R. Joda, M.R. Sabagh and M. Zorzi, "Joint access and fronthaul resource allocation in dual connectivity and CoMP based networks", Submitted to IEEE ICC 2018,

8. R. Joda, E. Erkip, F. Lahouti, "Delay-Distortion-Power Trade Offs in Quasi-Stationary Source Transmission over Block Fading Channels," *IEEE Transactions on Wireless Communications*, vol. 15, no. 7. pp. 4505-4520, July 2016.

9. R. Joda, M. Zorzi, "Decentralized Access Policy Design for Cognitive Secondary Users under a Primary Type-I HARQ Process," *IEEE International Conference on Communications*, May, 2016

10. R. Joda, M. Zorzi, "Access Policy Design for Cognitive Secondary Users under a Primary Type-I HARQ Process," *IEEE Transactions on Communications*, vol. 63, no. 11, pp. 4037 - 4049, Nov. 2015.

11. R. Joda, F. Lahouti, "Delay-limited source and channel coding of quasi-stationary sources over block fading channels: design and scaling Laws," *IEEE Transactions on Communications*, vol. 61, no. 4, pp. 1562-1572, Apr. 2013.

12. R. Joda, F. Lahouti, "Network code design for orthogonal two-hop network with broadcasting relay: A joint source-channel-network coding approach," *IEEE Transactions on Communications*, vol. 60, no. 1, pp. 132-142, Jan. 2012.

13. R. Joda, E. Erkip, F. Lahouti, "Wyner-Ziv Source Coding with Feedback and Uncertain Side Information," *Iran Workshop on Communication and Information Theory*, 2015.

14. R. Joda, M. Zorzi, "Centralized power allocation policy design for cognitive secondary users under a primary Type-II HARQ process," *IEEE International Conference on Computing, Networking and Communications,* Feb. 2015, Anaheim, California, USA.

15. R. Joda, M. Zorzi, "Access policy design for a cognitive secondary user under a primary Type-II HARQ process," *International Symposium on Telecomm.*, Sep. 2014, Tehran, Iran.

16. R. Joda, M. Zorzi, "Centralized access policy design for two cognitive secondary users under a primary ARQ process," *IEEE International Conference on Communications*, Jun. 2014, Sydney, Australia,

17. R. Joda, F. Lahouti, "Network code design for orthogonal multi-user channel with broadcasting relay and constrained resources," International Conference on Wireless Communications & Signal Processing, Nov. 2009.

18. R. Joda, F. Lahouti, "Nonlinear network code design for the multiple access relay channel," 24th Biennial Symposium on Communications, Ontario, Canada, Jun. 2008.

19. R. Joda, Z. Askary, F. Nouri, "Implementation of internet telephony based on SIP protocol," Annual Conference of Computer Society of Iran, 2005.

20. R. Joda, M. Kamarei, H. Jamali, "First order and second order power control algorithm," Iranian Conference on Electrical Engineering, 2001.

TEACHING EXPERIENCES

Instructor, Shahid Beheshti University, Spring 2019
Course Title: Advanced Communication Theory

Instructor, West Tehran Islamic Azad University, 2015-2018
Course Title: 1) Modeling and performance evaluation of computer systems,

2) Data Communications

Supervisor: 2 M.Sc. Students at Tehran University

Instructor, Parand Azad University 2009
Course Title: Electrical Circuits

Instructor, Sadra Institute of Higher Education, 2008
Course Title: Special Topics in GSM

Instructor, Parand Azad University, 2008 and 2009
Course Title: Advanced Mathematics

Instructor, Shariati University, 2006
Course Title: Telecommunications II

Teaching Assistant, University of Tehran, 1999
Course Title: Probability & Statistics

WORK EXPERIENCES

Assistant Professor, Iran Telecom Research Center

Project Manager, Iran Telecom Research Center, Tehran, Iran, July. 2017
Project Title: Techno-Economic analysis of 5G

Project Manager, Iran Telecom Research Center, Tehran, Iran, May. 2016-Jun 2017
Project Title: 5G Roadmap for Iran

Research engineer, Iran Telecom Research Center, Tehran, Iran, Nov. 2014-2016
Project Title: 5G networks.

Research engineer, Iran Telecom Research Center, Tehran, Iran, Apr. 2013-Aug 2013
Project Title: Provide a framework for the mobile value added services.

Research associate and Executor, Center for Wireless Multimedia Communications, school of ECE, University of Tehran (UT), 2012-Aug 2013.
Project Title: Developing a radio network planning and optimization laboratory.

Research associate, Center for Wireless Multimedia Communications, school of ECE, University of Tehran (UT), 2010-Aug 2012.
Project Title: Planning the workshop and seminar (international)

Research engineer, Iran Telecom Research Center, Tehran, Iran, 2005-2006
Project Title: Design for fixed broadband wireless network (IEEE 802.16).

Research engineer, Iran Telecom Research Center (ITRC), Tehran, Iran, 2005
Project Title: Implementation of ETSI TS 102 027-2 V3.1.1 for SIP test procedure.

Research engineer, Iran Telecom Research Center (ITRC), Tehran, Iran, 2003-2004
Project Title: SIP implementation on Linux platform.

Research engineer, Iran Telecom Research Center (ITRC), Tehran, Iran, 2002-2005
Project Title: SIP implementation on windows platform, RTP implementation in SIP signaling and implementation of SIP registrar server and authentication.

Research engineer, Iran Telecom Research Center (ITRC), Tehran, Iran, 2001-2002
Project Title: Research on voice over IP.

Research engineer, Iran Telecom Research Center (ITRC), Tehran, Iran, 1999-2000
Project Title: Implementation of supplementary services in N-ISDN.

HONORS

Ranked 2st among of MSc. Students of the major of Electrical Engineering, University of Technology, 2001

Ranked 37th in the graduate entrance exam of Electrical Engineering, 2001.

REFEREE

IEEE Transaction on Information Forensics and Security

IEEE Transaction on Communications

IEEE Transaction on Wireless Communications

IEEE Transaction on Vehicular Technology

IET Networks

IEEE Communications Letters

International Journal of Electronics and Communications

SPECIAL SKILS

Matlab (specially signal processing, communications and Simulink), Latex, programming with C++ (in Windows and Linux)/ Visual C++, Mobile network planning, NS3 and open source Air Interface.