

CV – KOČAN ENIS

Personal information:

Date of birth: May 05, 1979
Place of birth: Berane, Montenegro
Citizenship: Montenegro

Education:

PhD, January 2011 - University of Montenegro, Podgorica

Major: Mobile radiocommunications
PhD Thesis: "Solutions for performance improvement of OFDM relay systems through subcarrier permutation "

MSc, Sept. 2005 - University of Montenegro, Podgorica

Major: Telecommunications
MSc Thesis: "Influence of frequency offset on the performance of the OFDM space-time diversity system"

BSc, July 2003 - University of Montenegro, Podgorica

Major: Electrical Engineering - Electronics and Telecommunications

Current position:

Assistant professor at Faculty of Electrical Engineering, University of Montenegro

Teaching:

July 2014 – present: Assistant professor at Faculty of Electrical Engineering, University of Montenegro

October 2003 - July 2014: Teaching/Research Assistant at Faculty of Electrical Engineering, University of Montenegro

Teaching courses:

Faculty of Electrical Engineering - Academic Studies

- Radiocommunications, (2013 -)
- Radioengineering, (2013 -)

Maritime Faculty of Kotor - Academic Studies of Maritime sciences

- Maritime telecommunications, (2013 -)

Maritime Faculty of Kotor - Applied Studies of Navigation

- Maritime telecommunications, (2013 -)

Assisting at courses:

Faculty of Electrical Engineering - Academic Studies

- Basics of analogue telecommunications, (2003 -)
- Basics of digital telecommunications, (2003 -)
- Mobile radiocommunications, (2008 - 2013)
- Digital telecommunication systems, (2008 - 2011)
- Optical communications, (2008 - 2011)

Faculty of Electrical Engineering - Applied Studies

- Computer Networks and Communications, (2004 -)
- Business Computer Networks,(2006 - 2011)
- Data and system protection, (2006 - 2009)
- Mathematics for engineers (2010 -)
- Principles of mobile radiocommunications (2012 -)

Areas of interest and expertise:

Digital communication systems
Mobile radio communications
OFDM based relay systems
Multicarrier systems
Synchronization issues in OFDM systems
Computer networks

Grants and fellowships:

June - September 2008: Aristotle University of Thessaloniki, Greece
June 2013: École Polytechnique Fédérale De Lausanne - EPFL, Switzerland
June 2014: Center for Teleinfrastruktur, Aalborg University, Denmark
September 2014: École Polytechnique Fédérale De Lausanne - EPFL, Switzerland

Awards

Best paper award at the WPMC'13 (Wireless Personal Multimedia Conference), Atlantic City - USA, June 2013, for the paper "*BER Performance Improvement for OFDM DF Infrastructure Relay Links*"

Languages:

Fluent in English

Professional/scientific activities:

Reviewer of the IEEE Transactions on Communications
Reviewer of the IEEE Transactions on Vehicular Technology
Reviewer of the IEEE Communication Letters
Reviewer of the IEEE Wireless Communication Letters
Reviewer of the EURASIP Journal on Wireless Communications and Networking
Reviewer of the IEICE Transactions on Communications
Reviewer of the Wireless Communications and Mobile Computing, (John Wiley & Sons)
Reviewer of the Journal of Electrical and Computer Engineering, (Hindawi Publishing Corporation)
Reviewer of the Radio Science, (American Geophysical Union)
Reviewer of the Frequenz, Journal of RF-engineering and telecommunications (De Gruyter)
Member of the IEE

PUBLICATIONS

Book

1. M.Pejanovic-Djurisic, **E.Kocan**, R.Prasad: "*OFDM based relay systems for future wireless networks*", River Publishers, Denmark, 2012, (ISBN: 9788792329271)

International Journals

1. **E. Kocan**, M. Pejanovic–Djurisic, *Performance Improvement of Dual-Hop OFDM Decode-and-Forward Relay System*, Paper accepted for publication in *Wireless Personal Communications* (ISSN: 0929-6212).
2. **E. Kocan**, M. Pejanovic–Djurisic, *OFDM AF FG Relaying as an Energy Efficient Solution for the Next Generation Mobile Cellular Systems*, *Journal of Green Engineering*, vol. 3, no. 2, pp. 147-165, Jan. 2013. (ISSN: 1904-4720).
3. M. Pejanovic–Djurisic, **E. Kocan**, M. Ilic–Delibasic, *Energy Efficient Wireless Communications through Cooperative Relaying*, *Journal of Green Engineering*, vol. 3, no. 1, pp. 71-90, Oct. 2012. (ISSN: 1904-4720).
4. **E. Kocan**, M. Pejanovic–Djurisic, *"OFDM AF variable gain relay systems for the next generation mobile cellular networks"*, *TELFOR Journal*, vol. 4, no. 1, pp. 14-19, 2012. (ISSN: 1821-3251).
5. **E. Kocan**, M. Pejanovic – Djurisic, D. S. Michalopoulos, G. K. Karagiannidis *Performance evaluation of OFDM Amplify-and-Forward Relay System with Subcarrier Permutation*, *IEICE Trans. on Communications*, Vol.E93-B, No.05, pp. 1216-1223, May 2010. (ISSN: 0916-8516)

National Journals

1. **E. Kocan**, M. Pejanovic-Djurisic, "Capacity enhancement in OFDM variable gain AF relay systems", *ETF Journal of Electrical Engineering*, vol. 19, no. 1, pp. 48-60, October 2011. (YU ISSN 0353-5207).
2. **E. Kocan**, I. Vujosevic, *"Life and scientific work of James Clerk Maxwell"*, *ETF Journal of Electrical Engineering*, 2008.

Invited papers

1. M. Pejanovic-Djurisic, **E. Kocan**, "Relay techniques in cooperative communication systems", in *Proceedings of the TELFOR 2011 conference*, pp. 418-424, Belgrade – Nov. 2011.
2. **E. Kocan**, M. Pejanovic-Djurisic, "OFDM-based relay system for next generation wireless networks", in *Proceedings of "Mobile and wireless communications: State-of-art and perspectives"*, Montenegrin Academy of Sciences and Arts, The Section of Natural Sciences, vol. 12, pp. 99-110, March 2009.

International Conferences

1. **E. Kocan**, M. Pejanovic-Djurisic, *On the Optimal Solution for Performance Enhancement in Infrastructure OFDM Relay Systems*, in *Proc. of IEEE conf. VITAE'14 conf.*, pp. 1-5, Aalborg, Denmark, May 2014.
2. **E. Kocan**, M. Pejanovic-Djurisic, G. K. Karagiannidis, *On the Optimal Solution for BER Performance Improvement in Dual-Hop OFDM Relay Systems*, in *Proc. of IEEE WCNC'14 workshops*, pp. 276-281, Istanbul, Turkey, April 2014.

3. E. Salkovic, **E. Kocan**, M. Pejanovic-Djurisic, *Pulse shaping techniques for ICI Reduction in OFDM Decode-and-Forward Relay Systems*, in Proc. of IEEE conf. TELFOR 2013, pp. 192-195, Belgrade, Serbia, November 2013.
4. A. Hrovat, A. Vilhar, I. Ozimek, T. Javornik, **E. Kocan**, *GRASS-RaPlaT – Radio Planning Tool for GRASS GIS System*, in Proc. of IEEE conf. ICECom 2013, pp. 1-5, Dubrovnik, Croatia, October 2013.
5. **E. Kocan** M. Pejanovic-Djurisic, T. Javornik, *BER Performance Enhancement in OFDM AF Fixed Gain Relay Systems*, in Proc. of IEEE conf. EUROCON 2013, pp. 502-507, Zagreb, Croatia, July 2013.
6. **E. Kocan** M. Pejanovic-Djurisic, *BER Performance Improvement for OFDM DF Infrastructure Relay Links*, in Proc. of WPMC'13 conf., pp. 1-5, Atlantic City, USA, June 2013.
7. **E. Kocan** M. Pejanovic-Djurisic, C. Mecklenbräuker, *On the Ergodic Capacity of Dual-Hop OFDM based DF Relay System with Subcarrier Mapping*, in Proc. of IEEE conf. ICCSPA'13, pp. 1-5, Sharjah, UAE, February 2013.
8. E. Salkovic, **E. Kocan** M. Pejanovic-Djurisic, *BER Performance Degradation in OFDM DF Relay System Due to Inter-carrier Interference*, in Proc. of IEEE conf. ICCSPA'13, pp. 1-6, Sharjah, UAE, February 2013.
9. **E. Kocan** M. Pejanovic-Djurisic, G. K. Karagiannidis, *New Solution for BER Performance Improvement of OFDM AF Relay Systems*, in Proc. of IEEE conf. TELFOR 2012, pp. 412-415, Belgrade, Serbia, November 2012.
10. E. Salkovic, **E. Kocan**, M. Pejanovic-Djurisic, *Performance of Dual-Hop OFDM DF Relay System in Presence of Inter-carrier Interference*, in Proc. of IEEE conf. TELFOR 2012, pp. 346-349, Belgrade, Serbia, November 2012.
11. M Pejanovic-Djurisic, **E. Kocan**, M. Ilic-Delibasic, *Cooperative Relaying Techniques for Energy Efficient Wireless Communications*, In Proceedings of IEEE conf. MIPRO 2012, pp. 918-923, Opatija, Croatia, May 2012.
12. **E. Kocan**, M Pejanovic-Djurisic, *Ergodic Capacity of OFDM AF Fixed Gain Relay System with Subcarrier Mapping*, In Proc. of IEEE conf. WTS 2012, pp. 1-6, London, UK, April 2012.
13. **E. Kocan**, M Pejanovic-Djurisic, *Performance Enhancement of OFDM Non-Regenerative Variable Gain Relay Systems*, In Proc. of IEEE conf. MELECON 2012, pp. 1038-1041, Tunisia, March 2012.
14. U. Urosevic, Z. Veljovic, **E. Kocan**, *BER Performance of MIMO OFDM-CDMA System in Ricean Fading Channel*, In Proceedings of IEEE Conf. EUROCON 2011, pp.1-4, Lisbon, Portugal, April 2011.
15. **E. Kocan**, M Pejanovic-Djurisic, Z. Veljovic, *On the Optimal Subcarrier Mapping Scheme in OFDM Decode-and-Forward Relay Systems*, In Proceedings of IEEE WTS 2011, pp. 1-5, New York, USA, April 2011.
16. M. Ilic-Delibasic, M Pejanovic-Djurisic, **E. Kocan**, *Performance Analysis of Dual Diversity over Correlated Ricean Fading Channels*, In Proceedings of IEEE WTS 2011, New York, USA, April 2011.
17. **E. Kocan**, M Pejanovic-Djurisic, Z. Veljovic, *BER Performance of M-QAM Modulated OFDM Based Relay System with Subcarrier Mapping*, In Proceedings of WPMC 2010 Conference, pp. 1-5, Recife, Brazil, October 2010.

18. **E. Kocan**, M. Pejanovic-Djurisic, Z. Veljovic, *Efficient Frequency Synchronization and Channel Estimation Method for OFDM Wireless Systems*, In Proceedings of IEEE Conf. MELECON 2010 Conference, pp. 487-491, Valletta, Malta, April 2010.
19. **E. Kocan**, M. Pejanovic-Djurisic, Z. Veljovic, *On the Optimal OFDM Amplify-and-Forward Relay System with Subcarrier Permutation*, In Proceedings of WPMC 2009 Conference, pp. 1-5, Sendai, Japan, Sept. 2009
20. **E. Kocan**, M. Pejanovic-Djurisic, D. S. Michalopoulos, G. K. Karagiannidis, *BER performance of OFDM Amplify-and-Forward Relay System with Subcarrier Permutation*, In Proceedings of IEEE Wireless VITAE 2009 Conference, pp. 252-256, Aalborg, Denmark, May 2009.
21. **E. Kocan**, M. Pejanovic-Djurisic, Z. Veljovic, *Robust Pilot Tone Based Frequency Offset Estimation Method for OFDM Systems*, Proceeding of the ETAI Conference, pp. 1-6, Ohrid, September 2007.
22. M. Ilic, M. Pejanovic-Djurisic, **E. Kocan**, *SER Performance of OFDM Polarization Diversity System in Ricean Fading Environment*, The 3rd International Symposium on Wireless Communication Systems (ISWCS'06), pp. 452-455, Valencia – Spain, Sept. 2006.
23. **E. Kocan**, M. Pejanovic-Djurisic, M. Ilic, *A Novel Frequency Synchronization Method for OFDM System with Frequency Domain Selection Combining Diversity*, The 3rd International Symposium on Wireless Communication Systems (ISWCS'06), pp. 796-799, Valencia – Spain, Sept. 2006.
24. **E. Kocan**, M. Pejanovic-Djurisic, *Channel Estimation Technique with Frequency Offset Correction for OFDM Space-Time Diversity System*, The 7th International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services (TELSIKS '05), vol. 1, pp.93-96, Nis, September 2005.
25. **E. Kocan**, M. Pejanovic-Djurisic, *Performance of the OFDM Space-Time Receive Diversity System in the Presence of Frequency Offset*, in the Proceeding of the 8th International Symposium on Wireless Personal Multimedia Communications (WPMC '05), pp. 1-5, Aalborg - Denmark, September 2005.

Regional and National Conferences

1. **E. Kocan**, M. Pejanović-Djurisic, G. Karagiannindis, "Lower bound of ergodic capacity for OFDM AF fixed gain relay system with subcarrier mapping", in Proceedings of ETRAN 2012, Zlatibor, Serbia, June 2012.
2. **E. Kocan**, M. Pejanović-Djurisic, "Capacity of OFDM VG AF relay system in Rayleigh fading channels", in Proceedings of TELFOR 2011, pp. 469-472, Belgrade – Nov. 2011.
3. U. Urosevic, Z. Veljovic, **E. Kocan**, "Performance of MIMO-OFDM system in Ricean fading channel", in Proceedings of TELFOR 2010, pp. 348-351, Belgrade – Nov. 2010.
4. **E. Kocan**, M. Pejanovic-Djurisic, Z. Veljovic, "BER performance improvement of OFDM VG AF relay system through subcarrier permutation", in Proceedings of TELFOR 2010, pp. 372-375, TELFOR 2010, Belgrade – Nov. 2010.
5. M. Ilic, **E. Kocan**, I. Radusinovic, Z. Veljovic, "Improving energy efficiency in telecommunication networks – solutions overview First symposium of CIGRE – Montenegro, Pržno – Oct. 2009.
6. **E. Kocan**, M. Ilic, Z. Veljovic, I. Radusinovic, "Implementation of new telecommunications technologies in power system", First symposium of CIGRE – Montenegro, Pržno – Oct. 2009.

7. **E. Kocan**, M Pejanovic-Djurisic, Z. Veljovic, Performance Comparison of OFDM Amplify-and-Forward Relay Systems with Subcarrier Permutation, in Proceedings of ETRAN 2009, TE-2.2-1-4, Vrnjacka Banja, Serbia, June 2009.
8. **E. Kocan**, M Pejanovic-Djurisic, Z. Veljovic, Error rate analysis of OFDM Amplify-and-Forward Relay System with Subcarrier Permutation, in Proceedings of TELFOR 2008, pp. 307-310, Belgrade, Serbia, Nov. 2008.
9. **E. Kocan**, M. Pejanovic-Djurisic, Z.Veljovic,"Frequency Synchronization Method for OFDM Systems in Slow Time-Varying Channels", in Proceedings of TELFOR 2007, pp. 215-218, Belgrade - October 2007.
10. **E. Kocan**, M. Pejanovic-Djurisic, "Frequency Offset Influence on the Performance of the OFDM Space-Time Receive Diversity System" 50th ETRAN Conference, Belgrade – June 2006.
11. M. Ilić, **E. Kocan**, M. Pejanovic-Djurisic, "Analytical model for OFDM diversity system in Ricean fading channel", in Proceedings of 49th ETRAN Conference, vol. II, pp. 77-80, Budva - June 2005.
12. **E. Kocan**, M. Pejanovic-Djurisic, M. Ilic, "Channel estimation in OFDM system with receiver space-time diversity", in Proceedings of 49th ETRAN Conference, vol. II, pp. 73-76, Budva - June 2005.
13. **E. Kocan**, Z. Veljovic, E. Babacic, "OFDM-CDMA system with diversity at receiver side", 11th IT Conference, Zabljak - March 2005.
14. M. Ilic, **E. Kocan**, M. Pejanovic-Djurisic, "BER for OFDM system with receiver space diversity in Ricean fading channel", 12th TELFOR Conference, Belgrade - October 2004

Research projects, projects of bilateral scientific cooperation

1. *Centre of Excellence in Bioinformatics - BIO-ICT*, funded by Montenegrin Ministry of Science, work package leader for human resources, 2014-2017.
2. *Advanced solutions for performance improvement of cooperative wireless e-service infrastructures*, research project funded by Montenegrin Ministry of Science, project team member, 2012-2015.
3. *Performance analysis of OFDM relay and OFDM cooperative diversity systems*, research project funded by Montenegrin Ministry of Education and Science, project team member, 2009-2011.
4. *Advanced technologies for next generation mobile broadband communication systems*, bilateral scientific cooperation Slovenia-Montenegro, project team member, 2012-2014.
5. *Comparative analyses of OFDM cooperative diversity and wideband MIMO systems in future wireless communication networks*, bilateral scientific cooperation Montenegro-Austria, project team member, 2011-2013.
6. *Performance analyses of OFDM based relay systems*, bilateral scientific cooperation Croatia-Montenegro, project team member, 2011-2013.
7. *On the development of efficient reception techniques for mobile DVB-T systems*, bilateral scientific cooperation Montenegro-Greece, project team member, 2006-2008.

International projects

1. *eWall for Active Long Living - eWALL*, EU FP7 funded project, International consortium, Montenegrin team member, 2013-2016.
2. *Fostering innovation based research for e-Montenegro - FOrE-MONT*, EU FP7 funded project through REGPOT scheme, project team member, 2013-2016.
3. *Low EMF Exposure Future Networks - LEXNET* EU FP7 funded project, International consortium, Montenegrin team member, 2012-2015.
4. *Cooperative radio communications for green smart environments*, COST IC1004 project, Montenegrin team member, 2011-2014.
5. *RF/Microwave Communication Subsystems for Emerging Wireless Technologies (RFCSET)*, COST IC0803 project, Montenegrin team member.
6. *Fostering development of an ICT centre of excellence in Montenegro*, SCOPES “Scientific co-operation between Eastern Europe and Switzerland” programme, project team member 2011-2014.
7. *Promoting ICT Cooperation Opportunities and Policy Dialogue with the Western Balkan Countries (ICT-WEB-PROMS)*, EU FP7 funded Project, International consortium, Montenegro, January 2009.- 2011.
8. *Space for Science*, project initiated by UNESCO and funded by the European Space Agency (ESA) within the framework of the reconstruction of scientific cooperation in South-East Europe. Faculty of Electrical Engineering was one of the two partners from the University of Montenegro (team members: M. Pejanovic-Djurisic, E. Kocan), 2005-2006.

Technical projects

1. Z. Veljovic, E. Kocan, M. Ilic-Delibasic, U. Urosevic, *Study on the possibilities of using the digital dividend*, Faculty of Electrical Engineering, Podgorica, march 2013.
2. Z. Veljovic, E. Kocan, M. Ilic-Delibasic, U. Urosevic, *Technical basis for montenegrin standards (MEST) needed in the process of digitizing related to broadcasting the signals of the second generation digital terrestrial television*, Faculty of Electrical Engineering, Podgorica, march 2013.
3. Z. Veljovic, E. Kocan, M. Ilic-Delibasic, U. Urosevic, *Technical specification of the minimum requirements that the equipment for the reception of the second generation digital terrestrial television (DVB-T2) signals meet and testing compatibility of the equipment*, Faculty of Electrical Engineering, Podgorica, march 2013.
4. M. Pejanović-Đurišić, Z. Veljović, I. Radusinović, E. Kočan, M. Ilić, “*Study on applicability of WiMAX access technology in the network of Montenegrin Telecom*”, Faculty of Electrical Engineering, Podgorica, February 2008.
5. M. Pejanović-Đurišić, Z. Veljović, I. Radusinović, E. Kočan et al.: “*Analysis on the technological and economical feasibility of implementation of the third generation (3G) mobile communication networks in Montenegro*”, Faculty of Electrical Engineering in cooperation with Faculty of Economic, Podgorica, May 2006.
6. M. Pejanović-Đurišić, I. Radusinović, Z. Veljović, E. Kočan: “*Strategy of Information Society Development for Montenegro*”, Government of Montenegro, 2004.