Salama Said Ikki

Electrical & Computer Engineering DepartmentPhone :Lakehead UniversityCell PhoThunder Bay, Ontario, CanadaEmail 1:Nationality: CanadianEmail 2:

 Phone:
 (1) 807-343-8183

 Cell Phone:
 (1) 807-355-1437

 Email 1:
 sikki@lakeheadu.ca

 Email 2:
 salama.ikki@gmail.com

EXPERIENCE

Visiting Research Professor (Nokia Scholarship) at Aalto University.

Lakehead University Research Chair, April 1, 2021-present *Faculty of engineering, Electrical & Computer Department, Lakehead University, Thunder Bay, Ontario, Canada.*

Associate Professor, September 1, 2016-present *Faculty of engineering, Electrical & Computer Department, Lakehead University, Thunder Bay, Ontario, Canada.*

Assistant Professor, August 1, 2013- August 31, 2016 *Faculty of engineering, Electrical & Computer Department, Lakehead University, Thunder Bay, Ontario, Canada.*

Lecturer in Wireless Communications, Jan. 2, 2013- Dec. 1, 2013 *School of Electrical & Electronics Engineering, Newcastle University, Newcastle Upon Tyne, NE1 7RU, UK.*

Research Fellow, Feb.1, 2010-Nov. 31, 2012, INRS *Telecommunication Department, Prof. Sonia Aissa Research Group.*

Postdoctoral Fellow, Feb 1, 2009-Jan 31, 2010, University of Waterloo *Electrical and Computer Engineering Department, Prof. Murat Uysal Research Group.*

Full Time Lecturer, Sep. 2002 - Sep. 2005 *Electrical and Computer Engineering Department, Islamic University of Gaza, Palestine*

EDUCATION

Memorial University, Canada

Ph.D., Electrical Engineering, September 2005-January 2009.*M.Sc., Electrical Engineering*, GPA: 3.92/4.00 (1st rank), September 2000-September 2002

RESEARCH GRANTS

- 1. Mitacs Accelerate, 2022–2024, 110,000 CAD\$, Title: Low-Cost Sensor System for Remote COVID-19 Patient Monitoring.
- 2. NSERC Alliance 2020, 50,000 CAD\$, Title: Early identification and monitoring of the 2019 novel Coronavirus (Covid-19) disease community spread, (In partnership with Onica.).
- 3. NSERC-DG 2020, 205,000 CAD\$ (Two parts: LU 7000 CAD\$ + NSERC DG, 200,000 \$CAD). Title: Combined Massive MIMO and Interference Alignment for future Wireless Networks Involving Machine Type Communications.
- 4. NSERC Discovery Grant, 2014–2020, 150,000CAD\$.

- 5. NSERC ENGAGE Grant: LTE-advanced Machine Type Communication for Internet of Things (In partnership with WiMatek Systems). 2016-2017, 50,000CAD\$
- 6. NSERC ENGAGE Grant: Quadrature Spatial Modulation for Large-Scale MIMO Systems (In partnership with Ericsson). 2017-2018, 50,000CAD\$.
- 7. NSERC ENGAGE Grant: Mine Safety System Using Wireless Sensor Networks (In partnership with Goldcorp Inc.). 2017-2018, 50,000CAD\$
- 8. NSERC ENGAGE Grant: Machine Learning Based Cyber Threat Intelligence and detection in the Smart Grid (In partnership with N-Dimension Solutions Inc.). 2018-2019, 50,000CAD\$
- 9. NOAMA-AFP Grant 2020. Title: Medical Cyber-Physical Systems: An Efficient Sparse Biosensor Method for Remote Patient Monitoring. (Co- Investigator).
- 10. Lakehead University Internal Research Grant, 2014 30,000CAD\$.
- 11. Tabuk University, KSA, Grant, 2013-2015, 20,000US\$ per year.

HONORS and AWARDS

1. Merit Award for exceptional performance in research, Lakehead University, 2013–2015, 2015–2017, 2017–2019 and 2019–2021.

2. Exemplary Reviewer Certificates:

- (a) IEEE Transactions on Communications, (c) IEEE Communications Letters, 2013. 2016.
- (b) IEEE Transactions on Vehicular Technology, (d) IEEE Wireless Communications Letters, 2015.
 2013.

3. EURASIP Best Paper Award:

Salama Ikki and Mohamed H. Ahmed, "Performance of Multiple-Relay Cooperative Diversity Systems with Best-Relay Selection over Rayleigh Fading Channels," *EURASIP Journal on Advances in Signal Processing*, vol. 2008.

4. IEEE ComSoc Technology News: IEEE ComSoc Technology News is a web-based publication that will bring the top 0.5% of the most interesting, timely, and newsworthy articles to ComSoc members and to the entire global community.

Salama Ikki and R. Mesleh, "A General Framework for Performance Analysis of Space Shift Keying (SSK) Modulation in the Presence of Gaussian Imperfect Estimations," *IEEE Communications*, vol. 16, no. 2, 2012.

5. School of Electrical and Electronic Engineering, Newcastle University, Annual Research Conference, 2014. Second place for "Best Poster".

6. Memorial University

- (a) Department of Electrical Engineering Scholarship, September 2005-January 2009.
- (b) Dissertation Fellowship, January 2009.
- 7. The Arab academy for Science and Technology and Maritime Transport, Alexandria, Egypt
 - (a) Graduate Scholarship, September 2000- September 2002.

8. Al-Isra Jordanian University

- (a) Undergraduate Scholarship, Feb 1992- September 1996.
- (b) Best student award, Al-Isra Jordanian University, Amman, Jordan, 1996.

PROFESSIONAL SERVICES

Services in Lakehead University

- Senate Member, Lakehead University, 2017– 2019.
- 2. Chair of Senate Honorary Degrees Committee, 2017–2019.
- 3. Member in Senate Honorary Degrees Committee, 2016–2019.
- Member in Senate Library Committee 2016– 2019.
- 5. Member in Math Committee, Faculty of Engineering, 2014–

Editor:

1. IEEE Communications Letters

Reviewer for Journals

- 1. IEEE Communication Magazine
- 2. IEEE Journal on Selected Areas on Communications,
- 3. IEEE Transaction on Communications,
- 4. IEEE Transaction on Wireless communications,
- 5. IEEE Transaction on Vehicular Technology,
- 6. IEEE Transaction on Signal Processing,
- 7. IEEE Communication Letters,

- 6. Electrical Engineering Chair Appointment Committee, Faculty of Engineering, 2016
- 7. Acting Chair Of Electrical Engineering, August 2015–December 2015.
- Member of Judge in Lakehead Engineering Competition, Lakehead University, 2016, 2017.
- 9. Senior Member in IEEE organization.
- 10. Member in Professional Engineers, Ontario (P. Eng).
- 2. IET Communications
- 8. IEEE Signal Processing Letters,
- 9. IEEE Wireless Communication Letters,
- 10. EURASIP Journal on Advanced signal Processing,
- 11. EURASIP Journal on Wireless Communications,
- 12. Journal of Communications and Networks,
- 13. IET Communication, and
- 14. IET Signal Processing Proceeding.

CURRENT/PREVIOUS POSTDOCTORAL FELLOW SUPERVISION

- 1. Malek Al Smadi, (Ongoing), Topic: Visible light communications and positioning.
- 2. Yahia Alghorani, (Ongoing), *Topic:* Low-Cost Sensor System for Remote COVID-19 Patient Monitoring.
- 3. Ibrahim Alnahal, (Completed), Topic: Sparse Code Division Multiple Access.
- 4. Walid Hassan, (Completed), Currently: Director of Basra Wireless Communication Research Lab.

- 5. Ali Afana, (Completed), Currently: System Developer Engineer with Ericsson, Ottawa, Canada.
- 6. Eylem Erdogan, (Completed), *Currently:* Assistant Professor at Istanbul Medeniyet University, Istanbul, Turkey.
- 7. Amir H. Forghani, (Completed), Currently: System Analyst/Engineer, Verizon, Massachusetts, USA.
- 8. Asmaa Bouhlel, (Completed), Currently: Assistant Professor at University of Hafr Albatin, KSA.
- 9. Ayse Elif Canbilen,, (Completed), *Currently:* Assistant Professor, Electrical Engineering Department, Konya Teknik Üniversitesi, Konya, Turkey.

CURRENT/PREVIOUS PHD STUDENTS SUPERVISION

- 1. *Jammal Hussien*, (Graduated) (Sept. 2013–Sep. 2017), Principal Supervisor. (Currently Assistant Professor at University of Sulaimani, Iraq)
- Asma Bouhlel , (Graduated), (1/9/2016– 1/7/2018), Co-supervisor. Present Position: Post-doctorate fellow in my group.
- 3. *Ahmed Cheema*, (Graduated), Principal Supervisor.
- 4. *Malek Aalsamdi*, (Graduated), Principal Supervisor.
- 5. *Huda Alsheyab*, (Graduated), Principal Supervisor.
- 6. *Ibrahim Alnahhal*, (Graduated), Principal Supervisor
- 7. *Islam Abu Mahady*, (Graduated), Principal Supervisor.

- 8. *Osama Amjad*, (Graduated), Principal Supervisor.
- 9. *Ghasemi Fariba*, (Graduated), Principal Supervisor.
- 10. *Bushra Mughal*, (Graduated), Principal Supervisor.
- 11. *Sultanul Kabir* , (Sep. 2017), Principal Supervisor.
- 12. *Ibrahim alhurani,* (Sep. 2020), Principal Supervisor.
- 13. *Maysa Yaseen*, (Sep. 2020), Principal Supervisor.
- 14. Deeb Tubail, (Sep. 2020), Principal Supervisor.
- 15. Sara Hasan, (Sep. 2021), Principal Supervisor.
- 16. *Hamizuh Alsmadi*, (Sep. 2017), Principal Supervisor

Invited Talks

- 1. Keynote Speaker: Al-Azhar Engineering Fifteen International Conference.
- 2. Invited Talk: "5th Generation and Beyond Wireless Communications Challenges", Chalmers University of Technology, Sweden, 2020.
- Invited Talk: "5th Generation and Beyond Wireless Communications Challenges", Friedrich-Alexander-University Erlangen-Nuremberg, Germany, 2019.
- Keynote Speaker at 2nd EAI International Conference on Smart Grid and Internet of Things (IoT) Title: 5th Generation Wireless Communications Challenges Including Smart Grids and their Security, 2018.
- 5. **Tutorial** on "Quadrature Spatial Modulation", 28th Biennial Symposium on Communications (BSC), Kelowna, British Columbia, June 5–8, 2016.

- 6. Invited Talk: "Shedding lights on future wireless communications", Wireless Heterogeneous Sensor Networks(Wisense), University of Ottawa, 29 Nov. 2012.
- 7. Invited Talk: "Shedding lights on future wireless communications", Computer, Electrical and Mathematical Sciences and Engineering, KAUST, Saudi Arabia, 2013.
- 8. Invited Talk: "Future Direction of wireless communications", School Electrical and Electronics Engineering, University of York, York, UK, 2013.
- Invited Talk: "Challenges and Opportunities in Wireless Communications Research", Texas A&M Qatar Campus, 2014.
- 10. Invited Talk: "Future Direction of wireless communications" Computer, Electrical and Mathematical Sciences and Engineering, KAUST, Saudi Arabia, December 2013.

PUBLICATIONS

[Total number of citations: \approx 5500, H-index: 35, 10-index:101]

Patent

1. (Published) Quadrature spatial modulation system: http://www.freepatentsonline.com/9813278.html,

Inventors: Raed Mesleh, Salama Ikki, and El Hadi Aggoune.

Assignee: Sensor Networks and Cellular System, University Of Tabuk, Saudi Arabia.

Patent Application No: 14/972379.

Application date: 17 December 2015.

Publication Date: 7 November 2017.

Document Type and Number: United States Patent 9813278.

Link: http://www.freepatentsonline.com/9813278.html

2. (Published) Retransmission Scheme for OFDM-Index Modulation and Spatial Modulation:

Inventors: Ali Afana, A. Bin Sediq, Salama Ikki and Alex Stephenne

Assignee: Ericsson, Ottawa, Canada

Patent Application No: 14/972379

International Application No: PCT/IB2018/057265

Publication Date: 11.04.2019

Link: https://patentscope.wipo.int/search/en/detail.jsf?docId=W02019069168

Journal Articles

Accepted/Published

- 1. Ayse Elif Canbilen, Basar Ertugrul and Salama Ikki, "On the Performance of RIS-Assisted Space Shift Keying: Ideal and Non-Ideal Transceivers", *IEEE Transactions on Communications*, accepted, 2022.
- Deeb Tubail, Busra Ceniklioglu, Ayse Elif Canbilen, Ibrahim Develi and Salama Ikki, "Error Bounds for 3D Localization and Maximum Likelihood Estimation of mm-wave MISO OFDM Systems in the Presence of Hardware Impairments," *IEEE Communications Letters*, Accepted, 2022.

- Deeb Tubail, Busra Ceniklioglu, Ayse Elif Canbilen, Ibrahim Develi and Salama Ikki, "The Effect of Hardware Impairments on the Error Bounds of Localization and Maximum Likelihood Estimation of mm-Wave MISO-OFDM Systems," *IEEE Transactions on Vehicular Technology*, Accepted, 2022.
- Ibrahim Al-Nahhal, Octavia A. Dobre, Ertugrul Basar, Telex M. N. Ngatched, and Salama Ikki, "Reconfigurable Intelligent Surface Optimization for Uplink Sparse Code Multiple Access," *IEEE Communications Letters*, vol. 26, no. 1, pp. 133–137, 2022.
- Bushra Mughal, Zubair Fadlullah, Mostafa Fouda, and Salama Ikki, "Allocation Schemes for Relay Communications: A Multi-Band Multi-Channel Approach Using Game Theory," *IEEE Sensors Letters*, vol. 6, no. 1, pp. 1–4, 2022.
- 6. Ahmad Cheema, Malek Alsmadi and Salama Ikki, "Effects of Signal-Dependent Shot Noise on Visible Light Positioning," vol. 14, no. 3, *IEEE Photonics Journal*, 2022.
- Fariba Ghaseminajm, Malek Alsmadi and Salama Ikki, "Error Bounds for Localization in mmWave systems: Effects of Hardware Impairments Considering Perfect and Imperfect Clock Synchronization," Accepted, IEEE System Journal, 2022.
- 8. Bushra Mughal, Zubair Fadlullah, Mostafa Fouda, and Salama Ikki, "Optimizing Packet Forwarding Performance in Multi-Band Relay Networks via Customized Reinforcement Learning," Accepted, *IEEE Communications Journal*, 2022.
- 9. Osama Amjad, Ebrahim Bedeer, Najah Abu Ali and Salama Ikki, "Energy-Efficient Resource Allocation for eHealth Monitoring Wireless Body Area Networks with Backscatter Communication", Accepted, *IEEE Sensors Journal*, 2022.
- 10. Bushra Mughal, Zubair Fadlullah, Mostafa Fouda, and Salama Ikki, "Applying Game Theory to Relay Resource Selection in Hybrid-band Wireless Systems," *IEEE Sensors Journal*, Accepted, 2022.

- Maysa Yaseen, Malek Alsmadi, Ayse E. Canbilen, and Salama Ikki, "Visible Light Communication with Input-Dependent Noise: Channel Estimation, Optimal Receiver Design, and Performance Analysis", Accepted, *IEEE Journal of Lightwave*, 2021.
- 12. Ahmad Cheema, Malek Alsmadi and Salama Ikki, "Distance Estimation in Visible Light Communications: The Case of Imperfect Synchronization and Signal-Dependent Noise," Accepted, *IEEE Transactions on Vehicular Technology*, 2021.
- 13. Alaa Alhbbash, Ammar Abu-Hudrous, Mohammed Taha Elastal, Mahmoud Albreem and Salama Ikki, "Extended Signed Quadrature Spatial Modulation System with Multi-User Support", Accepted, *IEEE Transaction on Broadcasting*, 2021.
- 14. Malek Alsmadi, Ayse E. Canbilen, Najah Abu Ali and Salama Ikki, "Effect of Generalized Improper Gaussian Noise and In-Phase/ and Quadrature-Phase Imbalance on Quadrature Spatial Modulation ", *IEEE Journal of Signal Processing*, vol. 2, pp. 295–308, 2021.
- 15. Leila Nasraoui and Salama Ikki, "Neighbor Discovery for ProSe and V2X Communications" *IEEE Internet of Things Journal*, vol. 8, no. 9, pp. 7241–7251, May 2021.
- 16. Mahmoud Albreem, Alaa Alhbbash, Ammar Abu-Hudrous, and Salama Ikki, "Overview of Precoding Techniques for Massive MIMO", *IEEE Access*, Vol. 9, pp. 60764–60801, 2021.

- Bushra Mughal, Zubair Fadlullah and Salama Ikki, "Centralized Versus Heuristic-based Distributed Channel Allocation to Minimize Packet Transmission Delay for Multiband Relay Networks", *IEEE Networking Letters*, vol. 2, no. 4, pp. 180–184, Dec. 2020.
- 18. Ibrahim Al-Nahhal, Octavia Dobre and Salama Ikki, "On the Complexity Reduction of Sparse Code Multiple Access for Spatial Modulation," *IEEE Transactions on Communications*, vol. 68, no. 11, pp. 6962-6974, Nov. 2020.
- Ayse Elif Canbilen, Basar Ertugrul and Salama Ikki, "Reconfigurable Intelligent Surface-Assisted Space Shift Keying" IEEE Wireless Communications Letters, vol. 9, no. 9, pp. 1495-1499, Sep. 2020.

- Fariba Ghaseminajm, Zohair Abu-Shaban, Salama Ikki, Henk Wymeersch and Craig R. Benson, "Localization Error Bounds For 5G mmWave Systems Under I/Q Imbalance", *IEEE Transactions on Vehicular Technology*, vol. 69, no. 7, pp. 7971-7975, July 2020.
- O. M. S. Al-Ebraheemy, A. M. Salhab, M. El-Absi, Salam Zummo and Salama Ikki, "Performance Analysis of Mixed Interference Aligned MIMO RF/Unified FSO DF Relaying with Heterodyne Detection and Two IMDD Models", *IEEE Access*, vol. 8, pp. 93297-93308, 2020.
- 22. Huda El-Sheyab, Salimur Choudhury, Ibrahim Bedeer and Salama Ikki "Interference Minimization Algorithms for 5G and Beyond Systems," *Elsevier Computer Communications*, Special Issue on Unmanned Aerial, vol. 156, pp. 145-158, April 2020.
- 23. Ayse Elif Canbilen, Salama Ikki, Basar Ertugrul, Seyfettin Sinan Gultekin and Ibrahim Develi, "Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems over Generalized Beckmann Fading Channels," IEEE Transactions on Wireless Communications, vol. 19, no. 15, pp. 3034-3046, Feb. 2020.
- 24. M. Al-Jarrah, A. Al-Dweik, Salama Ikki and Emad Alsusa, "Spectrum-Occupancy Aware Cooperative Spectrum Sensing Using Adaptive Detection", *IEEE System Journal*, vol. 14, no. 2, June 2020.
- Osama Amjad, Ibrahim Bedeer, Najah AbuAli and Salama Ikki, "Robust Energy Efficiency Optimization Algorithm for Health Monitoring System with Wireless Body Area Network ", *IEEE Communications Letters*, vol 24, no. 5, pp. 1142-1145, 2020.

- 26. Ibrahim Al-Nahhal, Octavia Dobre, Basar Ertugru, Cecilia Moloney and Salama Ikki, "A Fast, Accurate, and Separable Method for Fitting a Gaussian Function", *IEEE Signal Processing Magazine*, Accepted, 2019.
- 27. Osama Amjad, Ibrahim Bedeer and Salama Ikki, "Energy Efficiency Maximization of Self-Sustained Wireless Body Area Sensor Networks," *IEEE Sensor Letters*, vol. 3, no. 12, 2019.
- Leila Nasraoui and Salama Ikki, "Theoretical Probability of DMRS-based Neighbor Discovery for Proximity Services," *IEEE Wireless Communications Letters*, Submitted, 2019.
- Ibrahim Al-Nahhal, Octavia Dobre, Basar Ertugru and Salama Ikki, "Uplink Sparse Code Multiple Access for Generalized Spatial Modulation", *IEEE Transactions on Vehicular Technology*, Submitted, 2019.
- 30. Omer Mahmoud, Anas Salhab, Mohammed El Absi, Slam Zemmo, Salam Adel Zummo and Salama Ikki, "Performance Analysis of Mixed Interference Aligned MIMO RF/Unified FSO Relaying with Heterodyne Detection and Two IM-DD Models," *IEEE Access*, Submitted, 2019.
- 31. Ibrahim Al-Nahhal, Octavia Dobre, Basar Ertugru and Salama Ikki, "Optimum Low-Complexity Decoder for Spatial Modulation", *IEEE Journal on Selected Areas in Communications* (IEEE J-SAC), Accepted, 2019.
- 32. M. Al-Jarrah, A. Al-Dweik, Salama Ikki and Emad Alsusa, "Spectrum-Occupancy Aware Cooperative Spectrum Sensing Using Adaptive Detection," *IEEE system Journal*, Accepted, 2019.
- 33. Walid A. Hassan, Han-Shin Jo Member, and Salama Ikki, "Spectrum-sharing Method for Co-existence Between 5G OFDM-Based System and Fixed Service," *IEEE Access*, Accepted, 2019.
- 34. Eylem Erdogan, Nihat Kabaoglua, Ali Afana and Salama Ikki, "On the Performance of Cognitive Two-Way Relay Networks with Multi-User Scheduling and Shadowing" *Elsevier Physical Communication*, vol. 35, no. 8, 2019.
- 35. Huda El-Sheyab, Salimur Choudhury, Ibrahim Bedeer and Salama Ikki "Near-Optimal Resource Allocation Algorithms for 5G+ Cellular networks," *IEEE Transactions on Vehicular Technology*, Accepted, 2019.
- Ali Afana, Najah AbuAli, and Salama Ikki, "On the Joint Impact of Hardware and Channel Imperfections on Cognitive Spatial Modulation MIMO Systems: Cramer-Rao Bound Approach" *IEEE System Journal*, vol. 13, no. 2, pp. 1250–1261, 2019.
- Malek AlSmadi, Ayse Elif Canbilen, Salama Ikki and, Basar Ertugrul, "Cognitive Networks in the Presence of I/Q Imbalance and Imperfect CSI: Receiver Design and Performance Analysis," *IEEE Access*, vol. 7, no. 1, ,pp. 49765–49777, 2019.

- 38. Ayse Elif Canbilen, Salama Ikki, Basar Ertugrul, Seyfettin Sinan Gultekin and Ibrahim Develi, "Impact of I/Q Imbalance on Amplify-and-Forward Relaying: Optimal Detector Design and Error Performance," IEEE Transactions on Communications, vol. 67, no. 5, pp. 3154-3166, May 2019.
- Sidrah javed, Osama Amin, Salama Ikki and M. -S. Alouini, "Error Probability Analysis of Hardware Impaired Systems with Asymmetric Transmission," *IEEE Transactions on Wireless Communications*, vol. 18, no. 3, pp. 1723–1738, March 2019.
- Sidrah javed, Osama Amin, Salama Ikki and M. -S. Alouini, "Multiple Antenna Systems with Hardware Impairments: New Performance Limits," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 2, pp. 1593–1606, Feb. 2019.
- Islam Abu Mahady, Ibrahim Bedeer, Salama Ikki and Halim Yanikomeroglu, "Sum-Rate Maximization of NOMA Systems under Imperfect Successive Interference Cancellation," *IEEE Communications Letters*, vol. 23, no. 3, pp. 474–477, March 2019.
- 42. Eylem Erdogan, Ali Afana, Hamza Umit Sokun, Salama Ikki, Lutfiye Durak-Ata, Halim Yanikomeroglu, "Signal Space Cognitive Cooperation," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 2, pp. 1953–1957, Feb. 2019.
- 43. M. Al-Jarrah, A. Al-Dweik, M. Kalil and Salama Ikki, "Decision Fusion in Distributed Cooperative Wireless Sensor Networks," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 1, pp. 797–811, Jan. 2019.

- 44. Ayse Elif Canbilen, Malek AlSmadi, Basar Ertugrul, **Salama Ikki**, Seyfettin Sinan Gultekin, Ibrahim Develi, "Spatial Modulation in the Presence of I/Q Imbalance: Optimal Detector & Performance Analysis," *IEEE Communications Letters*, vol. 22, no. 8, August 2018.
- Deeb Tubail, Mohammed El Absi, Salama Ikki, Wessam Mesbah, and Thomas Kaiser, "Artificial Noise based Physical Layer Security in Interference Alignment Multi-pair Two-Way Relaying Networks", IEEE Access, Vol. 6, no. 1, pp. 19073-19085, Dec., 2018.
- 46. Asma Bouhlel, Salama Ikki and Anis Sakly, "Quadrature Dual Mode Index Modulation," *IEEE Wireless Communications Letters*, Vol. 7, no. 4, pp. 542-545, August 2018.
- 47. Ali Afana, Najah AbuAli, and Salama Ikki, "On the Joint Impact of Hardware and Channel Imperfections on Cognitive Spatial Modulation MIMO Systems: Cramer-Rao Bound Approach" *IEEE System Journal*, Accepted, 2018.

- Asma Bouhlel, Stavros G. Domouchtsidis, Salama Ikki and Anis Sakly, "Performance of OFDM-IM Under Joint Hardware Impairments and Channel Estimation Errors over Correlated Fading Channels," [Special Issue] IEEE Access, vol. 5, no. 5, Dec. 2017.
- 49. Ali Afana, Islam Abu Mahady and Salama Ikki, "Quadrature Spatial Modulation in MIMO Spectrum Sharing Systems with Limited Feedback and Imperfect Channel Estimation," *IEEE Transaction on Communications*, vol. 65, no. 3, pp. 981–991, March 2017. (Most downloaded papers in March 2017).
- J. A. Hussein, S. Boussakta and Salama Ikki, "Performance Study of a UCRN Over Nakagami-m Fading Channels in the Presence of CCI," *IEEE Transactions on Cognitive Communications and Networking*, Vol. 3, no. 4, Dec. 2017.
- Ali Afana, Salama Ikki, Raed Mesleh, and Ibrahem Atawi, "Spectral Efficient Quadrature Spatial Modulation Cooperative AF Spectrum-Sharing Systems," *IEEE Transaction on Vehicular Technology*, vol. 66, no. 3, pp. 2857– 2861, March 2017.
- 52. Sidrah javed, Osama Amin, Salama Ikki and M. -S. Alouini, "Asymmetric Hardware Distortions in Receive Diversity Systems: Outage Performance Analysis," *IEEE Access*, vol. 5, no. 1, pp. 4492–4504, Dec. 2017.
- 53. Ali Afana and **Salama Ikki**, "Analytical Framework for Space Shift Keying MIMO Systems with Hardware Impairments and Co-channel Interference," *IEEE Communications Letters*, vol. 21, no. 3, pp. 488–491, March 2017.

- 54. Ali Esswie, Mohammed Elabsi, Octavia Dobre, **Salama Ikki** and Thomas Kaiser, "Spatial Channel Estimation Based FDD-MIMO Interference Alignment Systems," *IEEE Wireless Communications Letters*, vol. 6, no. 2, pp. 254–257, Feb. 2017.
- 55. E. Erdogan, A. Afana, Salama Ikki and Halim Yanikomeroglu, "Antenna Selection in MIMO Cognitive AF Relay Networks with Mutual Interference and Limited Feedback," *IEEE Communications Letters*, vol. 21, no. 5, pp. 1111–1114, May 2017.
- Ibrahim Al-Nahhal, Octavia Dobre and Salama Ikki, "Quadrature Spatial Modulation Decoding Complexity: Study and Reduction," *IEEE Wireless Communications Letters*, vol. 6, no. 3, pp. 378–381, June 2017.
- Hamza U. Sokun, Mehmet C. Ilter, Salama Ikki and Halim Yanikomeroglu, "A Spectrally Efficient Signal Space Diversity-Based Two-Way Relaying System," *IEEE Transaction on Vehicular Technology*, vol. 66, no. 7, pp. 6215– 6230, July 2017.
- Raed Mesleh, Salama Ikki Tumar and Sahel Alouneh, "Decode-and-Forward with Qudrature Spatial Modulation in the Presence of Imperfect Channel Estimation," *Elsevier Physical Communications Journal*, Vol. 24, Sep. 2017.

- 59. E. Erdogan, A. Afana, T. Gucluoglu and Salama Ikki, "Unified Analysis and Optimization Study of Antenna Selection in Two-Way Relay Networks," *IEEE Wireless Communications Letters*, Vol. 5, no. 2, pp. 216–219, 2016.
- J. A. Hussein, Salama Ikki, C. C. Tsimenidis, S. Boussakta and Jonathon Chambers, "Performance Analysis of a Multi-hop UCRN with Co-Channel Interference," *IEEE Transaction on Communications*, Vol. 64, no.10, pp. 4346–4364, 2016.
- J. A. Hussein, Salama Ikki, C. C. Tsimenidis and S. Boussakta, "Performance Analysis of Opportunistic Scheduling in Dual-Hop Multi-User Underlay Cognitive Network in the Presence of Co-Channel Interference," *IEEE Transaction on Vehicular Technology*, vol. 65, no. 10, pp 8163–8176, 2016.
- 62. Amr A. AbdelNabi, Fawaz S. Al-Qahtani, Mohammed Shaqfeh, Salama Ikki and Hussein Alnuweiri, "MIMO Multi-hop with TAS/MRC in Poisson Field of Interferers," *IEEE Transaction on Communications*, Vol. 64, no.2, pp. 525–540, 2016. (One of the top 50 most frequently downloaded document for the month of March, 2015)
- 63. Ali Afana, Raed Mesleh, Salama Ikki and Ibrahem Atawi, "Performance of Quadrature Spatial Modulation in Amplify-and-Forward Cooperative Relaying," *IEEE Communications Letters*, Vol. 20, no. 2, pp. 240–243, 2016.
- 64. J. A. Hussein, Salama Ikki, C. C. Tsimenidis and S. Boussakta, "Performance Study of Opportunistic Scheduling in Dual-Hop Multi-User Underlay Cognitive Network," *IET Communications*, Vol. 10, no. 5, pp. 558–566, 2016.

2015

- 65. Raed Mesleh and **Salama Ikki**, "Quadrature Spatial Modulation," *IEEE Transaction on Vehicular Technology*, *IEEE Transaction on Vehicular Technology*, vol 64, no. 6, 2015.
- 66. Osama Amin, Raed Mesleh, **Salama Ikki**, Mohamed H. Ahmed and Octavia Dobre "Performance Analysis of Multiple Relays Cooperative Systems with Signal Space Diversity," *IEEE Transaction on Vehicular Technology*, vol 64, no. 8, 2015.
- Hamza Umit Sokun, Akram Bin Sediq, Salama Ikki and Halim Yanikomeroglu, "Power Allocation Optimization in Selective DF Relaying with Different Modulation Levels in the Presence of Imperfect Channel Estimations," *IEEE Communications Letters*, vol 19, no. 5, pp. 867–870, 2015.

2014

 Fawaz Al Qahtani, Salama Ikki, and Marco Di Renzo "Performance Analysis of Space Shift Keying (SSK) Modulation with Imperfect Estimation in the Presence of Co-Channel Interference (CCI)," *IEEE Communications Letters*, vol 18, no. 9, pp. 1587–1590, 2014.

- Fawaz Al Qahtani, Salama Ikki, and Marco Di Renzo "Space Shift Keying MIMO System under Spectrum Sharing Environments in Rayleigh Fading," *IEEE Communications Letters*, 4vol 18, no. 9, pp. 1503–1506, July 2014..
- 70. Salama Ikki, Ubaidulla Pandarakkottilil and Sonia Aissa, "Performance Study and Optimization of Cooperative Diversity Networks with Co-Channel Interference," *IEEE Transaction on Wireless Communications*, vol.13, no.1, pp.14,23, January 2014.
- 71. Raed Mesleh, **Salama Ikki** and Osama Amin, "Multi-Hop Relaying Systems in the Presence of Co-Channel Interference over Nakagami-m Fading Channels," *IET Communications*, vol.8, no.4, pp.483,491, March 2014.
- Kais Ben Fredj, Salama Ikki and Sonia Aissa, "Performance Analysis of Two-way Opportunistic Decode-and-Forward Based Systems in Nakagami-m Fading Environments," *IET Communications*, vol 8, no. 9, pp. 1626–1636, 2014.
- 73. Raed Mesleh, Salama Ikki and Hadi M. Aggoune, "Quadrature Spatial Modulation: Performance Analysis and Impact of Imperfect Channel Knowledge," *Transactions on Emerging Telecommunications Technologies (ETT)*, pp. 2161–3915, 2014.

- 74. Yanju Gu, **Salama Ikki** and Sonia Aissa, "Opportunistic Cooperative Communication in the Presence of Co-Channel Interferences and Outdated Channel Information," *IEEE Wireless Communications Letters*, vol. 17, no. 10, pp. 1948–1951, Oct. 2013.
- A. H. Forghani, Salama Ikki and Sonia Aissa, "On the Performance and Power Optimization of Multihop Multibranch Relaying Networks With Cochannel Interferers," *IEEE Transactions on Vehicular Technology*, vol. 62, no. 7, pp. 3437–3443, July 2013.
- 76. Raed Mesleh and **Salama Ikki**, "Performance Analysis of Spatial Modulation with Multiple Decode and Forward Relays," *IEEE Wireless Communications Letters*, vol. 2, no. 4, pp. 423–426, 2013.
- 77. Salama Ikki, Ubaidulla Pandarakkottilil and Sonia Aissa, "Regenerative Cooperative Diversity Networks with Co-Channel Interference: Performance Analysis and Optimal Power Allocation," *IEEE Transaction on Vehicular Technology*, vol. 62, no. 2, pp. 896–902, Feb. 2013.
- A. H. Forghani, Salama Ikki and Sonia Aissa, "Performance of Non-Symmetric Relaying Networks in the Presence of Interferers with Unequal Powers," *IEEE Wireless Communications*, vol. 2, no. 1, pp. 106–109, Feb. 2013.
- 79. R. Y. Mesleh and **Salama Ikki**, "Space shift keying with amplify-and-forward MIMO relaying", *Transactions on Emerging Telecommunications Technologies*, 12 pages, Jan. 2013.

- Salama Ikki and Sonia Aissa, "Performance Analysis of Two-Way Relaying Amplify-and-Forward in the Presence of Co-channel Interferences," *IEEE transaction on Communications*, vol. 60, no. 4, pp. 933–939, April 2012.
- 81. Salama Ikki, Suhail I. Al-Dharrab and Murat Uysal, "Error Probability of DF Relaying with Pilot-Assisted Channel Estimation over Time-Varying Fading Channels," *IEEE Transaction on Vehicular Technology*, vol. 61, no. 1, pp. 393–397, Jan. 2012.
- Salama Ikki and Sonia Aissa, "Multi-Hop Wireless Relaying Systems in the Presence of Co-channel Interferences: Performance Analysis and Design Optimization," *IEEE Transaction on Vehicular Technology*, vol. 61, no. 2, pp. 566–573, Feb. 2012.
- 83. Salama Ikki and Sonia Aissa, "Impact of Imperfect Channel Estimation and Co-Channel Interference on Regenerative Cooperative Networks," *IEEE Wireless Communications Letters*, vol. 1, no. 5, pp. 436–439, Oct. 2012.
- 84. Salama Ikki and R. Mesleh, "A General Framework for Performance Analysis of Space Shift Keying (SSK) Modulation in the Presence of Gaussian Imperfect Estimations," *IEEE Communications Letters*, vol. 16, no. 2, pp. 228–230, Feb. 2012.
- 85. Salama Ikki and Sonia Aissa, "Impact of Imperfect Channel Estimation and Co-Channel Interference on Dual-Hop Relaying Systems," *IEEE Communications Letters*, vol. 16, no. 3, pp. 324–327, March 2012.

- 86. Salama Ikki and Sonia Aissa, "Two-Way Amplify-and-Forward Relaying with Gaussian Imperfect Channel Estimations," *IEEE Communications Letters*, vol. 16, no. 7, pp. 956–959, July 2012.
- 87. Salama Ikki and Sonia Aissa, "Performance Evaluation and Optimization of Dual-Hop Communication over Nakagami-*m* Fading Channels in the Presence of Co-Channel Interferences," *IEEE communications Letters*, vol. 16, no. 8, pp. 1149–1152, August 2012.
- 88. **Salama Ikki** and Sonia Aissa, "Performance Analysis of Amplify-and-Forward Relaying over Weibull-Fading Channels with Multiple Antennas," *IET communications Proceeding*, vol. 6, no. 2, pp. 165–171, 2012.
- Salama Ikki and Sonia Aissa, "Dual-Hop Amplify-and-Forward Relaying in the Presence of Co-Channel Interference: Performance Study and System Optimization," *IET Communications Proceeding*, vol. 6, no. 17, pp. 3036–3045, 2012.
- 90. Osama Amin, **Salama Ikki** and Murat Uysal, "Adaptive Bit Loading for Multi-Relay Cooperative OFDM with Imperfect Channel Estimation," *IET Communications*, vol. 6, no. 12, pp. 1821–1828, 2012.
- 91. Salama Ikki, "Performance Analysis of Cooperative Diversity Networks with Imperfect Channel Estimation over Rician Fading Channels," *IET Signal Processing Proceeding*, vol. 6, no. 6, pp. 577–583, 2012.
- 92. **Salama Ikki**, "Optimization Study of Power Allocation and Relay Location for Amplify-and-Forward Systems over Nakagami-*m* Fading Channels," *Transactions on Emerging Telecommunications Technologies*, Oct. 2012.
- 93. Raed Mesleh, **Salama Ikki**, Hadi M Aggoune and Ali Mansour, "Performance Analysis of Space Shift Keying (SSK) Modulation with Multiple Cooperative Relays," *EURASIP Journal on Advances in Signal Processing*, 2012.

- 94. R. Mesleh and Salama Ikki, "Performance Analysis of Space Shift Keying with Amplify and Forward Relaying," *IEEE Communications Letters*, vol. 15, no. 12, pp. 1350-1352, Dec. 2011.
- 95. Salama Ikki and Sonia Aissa, "A Study of Optimization Problem for Amplify-and-Forward Relaying over Weibull Fading Channels with Multiple Antennas," *IEEE Communications Letter*, vol. 15, no. 11, pp. 1148–1151, Nov. 2011.
- 96. **Salama Ikki** and Mohamed H. Ahmed, "Multi-Branch Decode-and-forward Cooperative diversity Networks Performance Analysis over Nakagami-*m* Fading Channels," *IET Communications Proceeding*, vol. 5, no. 6, pp. 872–878, 2011.
- 97. Salama Ikki and Mohamed H. Ahmed, "Performance Analysis of Cooperative Diversity with Incremental-Best-Relay Technique over Rayleigh Fading Channels," *IEEE Transaction on Communications*, vol. 59, no. 8, pp. 2152–2161, Aug. 2011.
- Osama Amin, Salama Ikki and Murat Uysal, "On the Performance Analysis of Multi relay Cooperative Diversity Systems With Channel Estimation Errors," *IEEE Transaction on Vehicular Technology*, vol. 60, no. 5, pp. 2050-2059, May 2011.
- 99. Salama Ikki and Mohamed H. Ahmed, "Performance Analysis of Incremental Relaying Cooperative Diversity Networks over Rayleigh fading channels," *IET Communications Proceeding*, vol. 5, no. 3, pp. 337–349, March 2011.

- 100. Abdaoui Abderrazek, Salama Ikki and Mohamed H. Ahmed, "On the performance analysis of MIMO Relaying scheme with Space Time Block Codes," *IEEE Transaction on Vehicular Technology*, vol. 59, no. 7, pp. 3604-3609, July 2010.
- Salama Ikki and Mohamed H. Ahmed, "Performance Analysis of Best-Path Selection Scheme for Multi-Hop Amplify-and-Forward Relaying," *European Transaction on telecommunications*, vol. 21, no. 7, pp. 603-610, November 2010.
- 102. Salama Ikki and Mohamed H. Ahmed, "On the Analysis of the Nth Best-Relay Cooperative-Diversity Networks," *IEEE Transaction on Communications*, vol. 58, no. 11, pp. 3062-3069, Nov. 2010.

- 103. **Salama Ikki** and Mohamed H. Ahmed, "Exact Error probability and channel Capacity of the Best-Relay Cooperative-Diversity Networks," *IEEE Signal processing letter*, vol. 16, issue 12, pp. 1051-1054, Dec. 2009.
- 104. Salama Ikki and Mohamed H. Ahmed, "Performance of Cooperative Diversity Using Equal Gain Combining (EGC) over Nakagami-m Fading Channels," *IEEE Transactions on Wireless Communications*, vol. 8, no. 2, pp. 557-562, Feb., 2009.
- 105. Salama Ikki and Mohamed H. Ahmed, "Performance Analysis of Adaptive Decode-and-Forward Cooperative Diversity Networks with the best relay selection Scheme," *IEEE Transactions on Communications*, vol. 8, no. 2, pp. 68-72, Feb., 2009.

2008

106. (EURASIP 2012 Best Paper Award) Salama Ikki and Mohamed H. Ahmed, "Performance of Multiple-Relay Cooperative Diversity Systems with Best-Relay Selection over Rayleigh Fading Channels," EURASIP Journal on Advances in Signal Processing, (Special issue on Cooperative Wireless Communications) vol. 2008, 7 pages.

2007

107. Salama Ikki and Mohamed H. Ahmed, "Performance Analysis of Cooperative Diversity Wireless Networks over Nakagami Fading Channel," *IEEE Communication letters*, vol. 11, no. 4, pp. 334-336, April 2007.

Peer Reviewed Conferences

2020

 Ayse Elif Canbilen and Salama Ikki, "Cramer-Rao Bound Approach and Error Performance for Spatial Modulation over Beckmann Fading Channels", IEEE International Conference on Communication (IEEE ICC'20), Dublin Ireland, 2020.

2019

- Leila Nasraoui and Salama Ikki, "Theoretical Probability of DMRS-based Neighbor Discovery for Proximity Services,"IEEE 30th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications, (IEEE PIMRC'19), Istanbul, Turkey, 2019.
- Nedia Badri, Leila Nasraoui and Salama Ikki, "Maximizing Lifetime in Energy-Harvesting WBSN for Health Monitoring Systems Through Dynamic Slots Allocation," 15th International Wireless Communications & Mobile Computing Conference (IWCMC 2019), Tangier, Morocco, 2019.

- Malek Alsmadi, Ayse Elif Canbilen, Basar Ertugrul, Salama Ikki, Seyfettin Sinan Gultekin, Ibrahim Develi, "Imperfect CSI and Improper Gaussian Noise Effects on SSK: Optimal Detection and Error Analysis," *IEEE Global Communications Conference: Communication Theory* (GC'18), UAE, Abu Dhabi, 2018.
- 2. Ali Esswie, Octavia A. Dobre, and Salama Ikki, "Directional Spatial Channel Estimation For Massive FD-MIMO in Next Generation 5G Networks", *IEEE International Conference on Communication* (ICC'18), USA, 2018.
- 3. Ibrahim Al-Nahhal, Octavia Dobre, and Salama Ikki, "Low Complexity Decoders for Spatial and Quadrature Spatial Modulations," *IEEE VTC*, Porto, Portugal, 2018.
- Malek Alsmadi, Najah Abu Ali and Salama Ikki, "SSK in the Presence of Improper Gaussian Noise: Optimal Receiver Design and Error Analysis", *IEEE Wireless Communications and Network Conference* (WCNC'18), Barcelona, Spain, 2018.
- Ahmed Cheema, Malek Alsmadi and Salama Ikki, "Survey of Identity-based Attacks Detection Techniques in Wireless Networks Using Received Signal Strength" 2018 IEEE Canadain Conference on Electrical & Computer Engineering (CCECE), Quebec City, Canada, 2018.

- M. Al-Jarrah, A. Al-Dweik, m. Kalil and Salama Ikki "Efficient Decision Fusion for Cooperative Wireless Sensor Networks" International Conference on Electrical and Computing Technologies and applications (ICECTA), UAE, 2017.
- Sidrah Javed, Osama Amin, Salama Ikki, and M-Slim Alouini "On the Optimal Detection and Error Performance Analysis of the Hardware Impaired Systems", *IEEE Global Communications Conference: Communication Theory* (IEEE GC'17), Singapore, 2017.
- Sidrah Javed, Osama Amin, Salama Ikki, and M-Slim Alouini "On the Achievable Rate of Hardware-Impaired Transceiver Systems", IEEE Global Communications Conference: Communication Theory (IEEE GC'17), Singapore, 2017.
- Deeb Tubail, Mohammed Elabsi, Salama Ikki, Wessam Mesbah and Thomas Kaiser, "Secure Interference Alignment Based Multiuser Relay System using Artificial Noise", *IEEE Global Communications Conference: Communication Theory* (IEEE GC'17), Singapore, 2017.
- 5. Sidrah Javed, Osama Amin, **Salama Ikki**, and M-Slim Alouini "Impact of Improper Gaussian Signaling on Hardware Impaired Systems", *IEEE International Conference on Communication* (ICC'17), Paris, France, 2017.
- Jamal Hussein, Salama Ikki, Said Boussakta, and Charalampos Tsimenidis, "Impact of Co-Channel Interference on an Underlay Cognitive Radio Network Over Nakagami-m Fading Channels", *IEEE International Conference on Communication* (ICC'17), Paris, France, 2017.
- Ali Esswie, Mohammed Elabsi, Octavia Dobre, Salama Ikki and Thomas Kaiser, "A Novel FDD Massive MIMO System Based on Downlink Spatial Channel Estimation Without CSIT", *IEEE International Conference on Communication* (ICC'17), Paris, France, 2017.
- Amir. H. Forghani, Salama Ikki, and Sonia Aissa "Relaying with Signal Space Diversity in the Presence of Co-Channel Interference", *IEEE 28th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications*, (IEEE PIMRC'17), Montreal, Canada, 2017.
- Asma Bouhlel, Islam Abu Mahady, Sakly Anis and Salama Ikki, "Performance Analysis of OFDM with Quadrature Index Modulation in the Presence of Hardware Impairment", IEEE 28th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications, (IEEE PIMRC'17), Montreal, Canada, 2017.
- Ali Afana, Najah Abu Ali, and Salama Ikki "Performance of Coginitive spatial modulation MIMO Systems Under Tranceiver Hardware Impairment", *IEEE 28th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications*, (IEEE PIMRC'17), Montreal, Canada, 2017.
- Ahmed Jendeya, Mohammed El-Absi, Salama Ikki and Thomas Kaiser, "Interference Alignment and Free-Space Optics Based Backhaul Networks" 11th International ITG Conference on Systems, Communications and Coding, Hamburg, Germany, 2017.
- Asma Bouhlel, Sakly Anis and Salama Ikki, ""Performance analysis of DWT based OFDM with index modulation under channel estimation error", International Conference on Engineering & MIS (ICEMIS), Monastir, Tunisia, 2017.

- Islam Abu Mahady, Ali Afana and Salama Ikki, "Space Shift Keying in MIMO Cognitive Radio Systems with Limited Feedback and Channel Estimation Errors", 28th Biennial Symposium on Communications (BSC), Kelowna, British Columbia, June 5–8, 2016.
- 2. Jamal Hussein, **Salama Ikki**, Said Boussakta, and Charalampos Tsimenidis, "Exact Outage Performance of the SIMO Cognitive Cooperative Network in the Presence of Co-Channel Interference", *IEEE Wireless Communications and Networking Conference* (WCNC'16), Doha, Qatar, 2016.
- Islam Abu Mahady, Ali Afana, Raed Mesleh, Salama Ikki, and Ibrahem Atawi, "Cognitive MIMO Quadrature Spatial Modulation Systems with Mutual Primary-Secondary Co-channel Interference", *IEEE Wireless Communications and Networking Conference* (WCNC'16), Doha, Qatar, 2016.
- A. Afana, E. Erdogan and Salama Ikki, "Quadrature Spatial Modulation for Cooperative MIMO 5G Wireless Networks" *IEEE Global Communications Conference: Communication Theory* (IEEE GC'16), Washington DC, USA, 2016.

- (Invited Paper) Ali Afana, Ibrahem Atawi, Salama Ikki, and Raed Mesleh "Energy Efficient Quadrature Spatial Modulation MIMO Cognitive Radio Systems with Imperfect Channel Estimation" 15th IEEE International Conference on Ubiquitous Wireless Broadband 2015: Workshop on Next Generation of Green ICT and 5G Networking (GreeNets) Montreal, Canada, 2015.
- Hamza Umit Sokun, Salama Ikki and Halim Yanikomeroglu, "A Signal Space Diversity-Based Time Division Broadcast Protocol in Two-Way Relay Systems" *IEEE Global Communications Conference: Communication Theory* (IEEE GC'15), San Diego, USA, 2015.
- A. Afana, T.Ngatched, O. A. Dobre and Salama Ikki "Spatial Modulation in MIMO Spectrum-Sharing Systems with Imperfect Channel Estimation and Multiple Primary Users", *IEEE Global Communications Conference: Communication Theory* (IEEE GC'15), San Diego, USA, 2015.
- A. Afana, T.Ngatched, O. A. Dobre and Salama Ikki "Spatial Modulation in MIMO Cognitive Radio Networks with Channel Estimation Errors and Primary Interference Constraint", *IEEE Global Communications Conference: Communication Theory* (IEEE GC'15), San Diego, USA, 2015.
- 5. A. Afana, Salama Ikki, T.Ngatched and O. A. Dobre "Performance Analysis of Cooperative Networks with Optimum Combining and Co-channel Interference", *IEEE International Conference on Communication* (ICC'15), London, UK, 2015.
- R. Mesleh and Salama Ikki, "On the Impact of Imperfect Channel Knowledge on the Performance of Quadrature Spatial Modulation", *IEEE Wireless Communications and Networking Conference* (WCNC'15), New Orleans, US, 2015.
- J. A. Hussein, Salama Ikki, S. Boussakta and C. C. Tsimenidis, "Performance Study of the Dual-hop Underlay Cognitive Network in the Presence of Co-Channel Interference", *IEEE Vehicular Technology Conference* (VTC'15), Glasgow, UK, 2015.
- 8. Ahmed Shaarany, Mohamed Khairy, Mohamed Abdallah, Khalid Qaraqe and **Salama Ikki**, "Best Relay Selection for DF Underlay Cognitive Networks With Different Modulation Levels" *10th International Conference on Cognitive Radio Oriented Wireless Network*, Doha, Qatar, 2015.

2014

- Hamza Umit Sokun, Akram Bin Sediq, Salama Ikki and Halim Yanikomeroglu, "Selective DF Relaying in Multi-Relay Networks With Different Modulation Levels" *IEEE International Conference on Communication*, ICC14, Sydney, New south Wales, Australia, 2014.
- R. Mesleh, Salama Ikki and Osama Amin, "Enhancing Cooperative Communication Spectral Efficiency Through Signal Space Diversity" *IEEE Wireless Communications and Networking Conference* (WCNC'14), Istanbul, Turkey, 2014.
- 3. O. Badarneh, R. Mesleh, **Salama Ikki** and H. M. Aggoune, "Performance Analysis of Space Modulation Techniques over alpha-mu Fading Channels with Imperfect Channel Estimation" *IEEE Vehicular Technology Conference* (VTC'14-Fall), Vancouver, British Colombia, Canada, 2014.
- 4. R. Mesleh and **Salama Ikki**, "A High Spectral Efficiency Spatial Modulation Technique" *IEEE Vehicular Technology Conference* (VTC'14-Fall), Vancouver, British Colombia, Canada, 2014.
- J. A. Hussein, Salama Ikki, S. Boussakta and C. C. Tsimenidis, "Performance Analysis of the Opportunistic Multi-relay Network with Co-channel Interference" *The 22th European Signal Processing Conference* (EUSIPCO 2014), Lisbon, Portugal, 2014.
- 6. H. A. Leftah, S. Boussakta, and **Salama Ikki**, "Enhanced Alamouti space-time block-coding transmission based on a developed OFDM system," Communication Systems, Networks & Digital Signal Processing (CSNDSP), 2014 9th International Symposium on , vol., no., pp.591,595, 23-25 July 2014.

2013

 Kais Ben Fredj, Salama Ikki, Sonia Aissa, "Two-way Opportunistic Relaying Systems: Performance and Optimization in Rayleigh Fading Environments" *IEEE 24th International Symposium on Personal, Indoor a nd Mobile Radio Communications* (PIMRC'13), London, UK, Sep. 2013.

- Raed Mesleh, Salama Ikki, Osama Amin and Said Boussakta, "Analysis and Optimization of AF Multi-Hop over Nakagami-m Fading Channels in the Presence of CCI" *IEEE 24th International Symposium on Personal, Indoor a nd Mobile Radio Communications* (PIMRC'13), London, UK, Sep. 2013.
- Raed Mesleh and Salama Ikki, "Analysis of Cooperative Communication Spatial Modulation with Imperfect Channel Estimation" *IEEE 24th International Symposium on Personal, Indoor a nd Mobile Radio Communications* (PIMRC'13), London, UK, Sep. 2013.
- Salama Ikki, Raed Mesleh and Said Boussakta, "Cooperative Networks over Generalized Gamma Fading Channels with Multiple Antennas" *IEEE 14th Workshop on Signal Processing Advances in Wireless Communications* (SPAWC'13), London, UK, Sep. 2013.

- R. Mesleh, Salama Ikki and M. Alwakeel, "On the Performance of Dual-Hop Space Shift Keying with Single Amplify-and-Forward Relay" *IEEE Wireless Communications and Networking Conference* (WCNC'12), Paris, France, 1-4 April 2012.
- R. Mesleh and Salama Ikki, "On the Effect of Gaussian Imperfect Channel Estimations on the Performance of Space Modulation Techniques" 75th IEEE Vehicular Technology Conference (VTC'12-Spring), Yokohama, Japan, 6-9 May 2012.
- 13. Salama Ikki and Sonia Aissa, "Error Analysis of Amplify-and-Forward Two-Way Relaying in the Presence of Co-channel Interferences," *IEEE International Conference on Communication*, ICC12, Ottawa, Ontario, Canada 2012.
- 14. A.H. Forghani, **Salama Ikki** and Sonia Aissa , "Performance Evaluation of Multi-Hop Multi-Branch Relaying Networks with Multiple Co-Channel Interferers" *IEEE International Conference on Communication*, ICC12, Ottawa, Ontario, Canada 2012.

2011

- 15. Salama Ikki and Sonia Aissa, "Error Probability Analysis of Two-Way Amplify-and-Forward Relaying in the Presence of Imperfect Channel Estimations," *IEEE Personal Indoor Mobile Radio Communications* (PIMRC'11), Toronto, Ontario, Canada, 2011.
- Salama Ikki and Sonia Aissa, "Investigations on the Effects of Co-channel Interference on Dual-Hop Transmission in Nakagami-m Fading," *IEEE Personal Indoor Mobile Radio Communications* (PIMRC'11), Toronto, Ontario, Canada, 2011.
- 17. Salama Ikki and Sonia Aissa, "Joint Optimization of Power Allocation and Relay Position for Regenerative Relaying in the Presence of Co-Channel Interference," *IEEE Personal Indoor Mobile Radio Communications* (PIMRC'11), Toronto, Ontario, Canada, 2011.
- 18. Salama Ikki and Sonia Aissa, "Effects of Co-channel Interference on the Error Probability Performance of Multi-Hop Relaying Networks," *IEEE Global Telecommunications Conference*, GLOBCOM'11, Texas, USA, 2011.
- A.H. Forghani, Salama Ikki and Sonia Aissa, "Novel approach for approximating the performance of multi-hop multi-branch relaying over Rayleigh fading channels" 4th. IFIP Wireless Days Niagara Falls, Ontario, Canada, 2012.

- 20. Salama Ikki and Sonia Aissa, "Performance Analysis of Dual-Hop Relaying Systems in the Presence of Co-Channel Interference," *IEEE Global Telecommunications Conference*, GLOBCOM'10, Florida, USA, 2010.
- Salama Ikki, Osama Amin and Murat Uysal, "Performance Analysis of Cooperative Diversity Networks over Imperfect Channel Estimations," *IEEE International Conference on Communication*, ICC10, South Africa, Capetown, 2010.

- 22. Salama Ikki, Suhail I. Al-Dharrab and Murat Uysal, "Exact Closed-Form Error Probability Expression for Cooperative-Diversity Networks With Channel Estimation Errors in Time Selective Rayleigh Fading Channels," IEEE International Conference on Communication, ICC10, South Africa, Capetown, 2010.
- 23. Abdaoui Abderrazek, Salama Ikki, and Mohamed H. Ahmed, "Performance Analysis of MIMO Cooperative Relaying System Based on Alamouti STBC and Amplify-and-Forward Schemes," *IEEE International Conference* on Communication, ICC10, South Africa, Capetown, 2010.
- 24. Salama Ikki, and Mohamed H. Ahmed, "On the Capacity of Relay-Selection Cooperative-Diversity Networks Under Adaptive Transmission," *IEEE VTC 2010-Fall*, Ottawa, Canada, 2010.
- 25. Salama Ikki, and Mohamed H. Ahmed, "Performance Analysis of Generalized Selection Combining For Decodeand-Forward Cooperative-Diversity Networks," *IEEE VTC 2010-Fall*, Ottawa, Canada, 2010.
- 26. Salama Ikki, and Sonia Aissa, "A Study of Optimization Problem for Amplify-and-Forward Relaying Systems over Weibull Fading Channels," *IEEE VTC 2010-Fall*, Ottawa, Canada, 2010.
- Salama Ikki, Osma Amin and Murat Uysal, "Performance Analysis of Optimum Switching Adaptive L-QAM for Decode-and-Forward Relay Selection Cooperative Diversity Networks," *IEEE VTC 2010-Spring*, Taipei, Taiwan, 2010.
- Salama Ikki, Mohamed F. Feteiha and Murat Uysal, "Performance Analysis of Cooperative Diversity Networks over Imperfect Channel Estimations With Rician Fading Channels," 17th International Conference on Telecommunications, ICT'2010, Doha, Qatar, 2010.

- Salama Ikki, and Mohamed H. Ahmed, "On the Performance of Adaptive Decode-and-Forward Cooperative Diversity with the Nth Best-Relay Selection Scheme," *IEEE Global Telecommunications Conference*, GLOBCOM'10, Hawaii, Honolulu, USA, 2009.
- Salama Ikki, Murat Uysal and Mohamed H. Ahmed, "Performance Analysis of Incremental-Best-Relay Amplifyand-Forward Technique," *IEEE Global Telecommunications Conference*, GLOBCOM'09, Hawaii, Honolulu, USA, 2009.
- 31. Salama Ikki, Murat Uysal and Mohamed H. Ahmed, "Performance Analysis of Incremental-Best-Relay Decodeand-Forward Technique," *IEEE Global Telecommunications Conference*, GLOBCOM'09, Hawaii, Honolulu, USA, 2009.
- 32. Salama Ikki, Murat Uysal and Mohamed H. Ahmed, "Joint Optimization of Power Allocation and Relay Location for Decode-and-Forward Dual-Hop Systems over Nakagami-m Fading Channels," *IEEE Global Telecommunications Conference*, GLOBCOM'09, Hawaii, Honolulu, USA, 2009.
- 33. Salama Ikki, and Mohamed H. Ahmed, "Performance Analysis of Decode-and-Forward Incremental Relaying Cooperative-Diversity Networks over Rayleigh Fading Channels," *IEEE VTC 2009-Spring*, Barcelona, Spain, 2009.
- 34. Salama Ikki, and Mohamed H. Ahmed, "On the Performance of Adaptive Decode-and-Forward Cooperative Diversity with the Nth Best-Relay Selection Scheme," *IEEE VTC 2009-Spring*, Barcelona, Spain, 2009.
- 35. Salama Ikki, and Mohamed H. Ahmed, "Performance analysis of dual hop relaying over non-identical Weibull fading channels," *IEEE VTC 2009-Spring*, Barcelona, Spain, 2009.
- 36. **Salama Ikki**, and Mohamed H. Ahmed, "Performance Analysis of Decode-and-Forward Cooperative Diversity Using Differential EGC over Nakagami-m Fading Channels," *IEEE VTC 2009-Spring*, Barcelona, Spain, 2009.
- Salama Ikki, and Mohamed H. Ahmed, "Performance Analysis of Multi-Branch Decode-and-Forward Cooperative Diversity Networks over Nakagami-m Fading Channels," *IEEE International Conference on Communication*, ICC09, Germany, 2009.
- 38. Salama Ikki, and Mohamed H. Ahmed, "On the Performance of Amplify-and-Forward Cooperative Diversity with the Nth Best-Relay Selection Scheme," *IEEE International Conference on Communication*, ICC09, Germany, 2009.
- 39. Salama Ikki, and Mohamed H. Ahmed, "Performance Analysis of Generalized Selection Combining Scheme For Amplify-and-Forward Cooperative Diversity Networks," *IEEE International Conference on Communication*, ICC09, Germany, 2009.

 Salama Ikki, and Mohamed H. Ahmed, "Performance Analysis of Incremental Relaying Cooperative Diversity Networks over Rayleigh Fading Channels," *IEEE WCNC'08*,Las Vegas, USA, 2008.

2007

- 41. Salama Ikki and Mohamed H. Ahmed, "Performance of Decode-and-Forward Cooperative Diversity Networks over Nakagami-m Fading Channels," *IEEE Global Telecommunications Conference*, GLOBCOM'07, Washington Dc, USA, 2007.
- Salama Ikki and Mohamed H. Ahmed, "Performance Analysis of Dual-Hop Relaying Communications over Generalized Gamma Fading Channels," *IEEE Global Telecommunications Conference*, GLOBCOM'07, Washington Dc, USA, 2007.
- 43. Salama Ikki, and Mohamed H. Ahmed, "Performance Analysis of Cooperative Diversity Using Equal Gain Combining (EGC) Technique over Rayleigh Fading Channels," *IEEE International Conference on Communication*, ICC07, Glasgow, Scotland, 2007.
- 44. **Salama Ikki**, and Mohamed H. Ahmed, "Performance of Selection Combining In Cooperative Relaying Networks over Rayleigh Fading Channel," *21st Canadian Conference on Electrical and Computer Engineering*, CCECE/CCGEI, Niagara falls, Canada, 2007.
- 45. **Salama Ikki**, and Mohamed H. Ahmed, "Performance of Multi-Hop Relaying Systems over Weibull Fading Channels," *1st International Conference on New Technologies, Mobility and Security*, Paris, France, 2007.

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