

# 1 PUBLICATIONS:

## 1.1 Journals

1. Onwuka, E. N., Aliyu, S., Okwori, M., **Salihu, B. A.**, Onumanyi, A. J., & Bello-Salau, H. (2019). Optimal design of colpitts oscillator using bat algorithm and artificial neural network (BA-ANN). In *Advances in Intelligent Systems and Computing* (Vol. 853). [https://doi.org/10.1007/978-3-319-99996-8\\_3](https://doi.org/10.1007/978-3-319-99996-8_3).
2. Abideen A. ISMAIL , Elizabeth, N. ONWUKA , **Bala, A. SALIHU** , Osichinaka C. UBADIKE, Detecting covert members: Quadrant approach for classification and identification of smart criminals, *International Journal of Information Processing and Communication (IJIPC)* Vol. 7 No. 2 [December, 2019], pp. 71-82 Online: ISSN 2645-2960; Print ISSN: 2141-3959 71
3. N.M. Hassan, H Bello-Salau, CO Alenoghena, **B.A. Salihu**, Non Orthogonal Multiple Access Based Interference Mitigation Schemes in the Emerging 5G Cellular Mobile Networks.
4. EN Onwuka, **BA Salihu**, IA Abdulrahman, Enhanced Subscriber Churn Prediction Model for the Mobile Telecommunication Industry, *ATBU Journal of Science, Technology and Education*, 2017. 5(4) pages 67-74.
5. S Badu, C Alenoghena, M David, **B Salihu**, Optimization of Radial Line Slot Array Antenna Feeder Design for Direct Broadcast Satellite Services, *ATBU Journal of Science, Technology and Education* 5 (4), 9-16
6. AA Ismail, EN Onwuka, **BA Salihu**, CO Ubadike, Towards Mining of Stakeholders in Criminal Organizations from Telecommunication Metadata: Analytic Approach to Latent Feature Extraction, *ATBU Journal of Science, Technology and Education* 7 (3), 42-48.
7. C., Onu; A., **Salihu B.**; J., Abolarinwa. Enhanced Fractional Frequency Reuse in Lte-A Heterogeneous OFDMA Network. *ATBU Journal of Science, Technology and Education*, 6 (2) p.18-27.
8. ST Hassan, JA Abolarinwa, CO Alenoghena, **SA Bala** and M David, Intelligent Sign Language Recognition Using Image Processing Techniques: A Case of Hausa Sign Language, *ATBU Journal of Science, Technology and Education* 6 (2), 127-134
9. O. Okonkwo, A. J. Onumanyi, **B. A. Salihu**, H. Bello Salau, S. S. Oyewobi, Performance of the Recursive One-Sided Hypothesis Testing Technique under varying Signal to Noise Ratio Conditions in Cognitive Radio J., *International Conference on Global and Emerging Trends (ICGET 2018)*,  
<https://www.globaltrendsacademy.com/ICGET-2018/COMPUTING%20AND%20COMPUTING%20ENGINEERING/Performance%20of%20the%20Recursive%20One-Sided.pdf>

10. Aliyu Alhaji Ndakotsu, Caroline O. Alenoghena, **Salihu Alhaji Bala**, Mahmood M. K, ONU Christian, Performance Analysis of Mobile Network Services: A Case Study on the Federal Polytechnic Bida, Nigeria, *International Journal of Information Processing and Communication (IJIPC)* Vol. 6 No. 1 , June 2018, pp 56-66
11. **Bala Alhaji Salihu**, Yang Dacheng, Suleiman Zubair, “Analytic Hierarchy process (AHP) for Autonomous Component Carrier Selection (ACCS) in Carrier Aggregation systems”: *Research Journal of Information Technology*,2014, ISSN; 1815 7432/DOI 10.3923/rjit.2014
12. **Bala Alhaji Salihu**, Yang Dacheng, Zhang Xin, Suleiman Zubair, ”Evolution of Physical Downlink Control Channel (PDCCH) for LTE-Advanced Systems”: *IJAC T: International Journal of Advancements in Computing Technology*, Vol. 6, No. 1,January 2014, pp. 20 ~ 36, 2014
13. Mala Umar Mustapha Bakura, **Bala Alhaji Salihu** and Suleiman Zubair. “A Novel Geometrical Mixed-Bounce Two-Ring Deterministic Model for MIMO Mobile-to-Mobile Non-Isotropic Communication Channel”; *International Journal of Computer Applications* 70(28):1-6, May 2013. Published by Foundation of Computer Science, New York, USA. <http://www.ijcaonline.org/archives/volume70/number28/12252-7820>
14. **Bala Alhaji Salihu**, Zubair Suleiman & Mala U. Mustapha Bakura, “Advances in Inter-Cell Interference Coordination for Realization of Robust Heterogeneous Networks In LTE-A Systems”; *International Journal of Engineering Science Invention*; ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726 .[www.ijesi.org](http://www.ijesi.org) Volume 2 Issue 2 | February. 2013 | PP.40-48 [http://www.ijesi.org/papers/Vol\(2\)2%20\(Version-1\)/G224048.pdf](http://www.ijesi.org/papers/Vol(2)2%20(Version-1)/G224048.pdf)
15. **Salihu, Alhaji Bala** and Zubair, Suleiman “Satellite Networks Engineering Education In Nigeria: Challenges and Opportunities”; *Ozean Journal of Applied Sciences* 5(1), 2012 ISSN 1943-2429,© 2012 Ozean Publication; <http://ozelacademy.com/6ojas%20794%20salihu%20gel.tar.%2022%20kas%C4%B1m%202011%20paid.pdf>
16. **Bala Alhaji Salihu**, Dacheng Yang, Mala Umar Mustapha Bakura, & Zubair Suleiman,” Resource Scheduling in Frequency Selective Environment for Carrier Aggregation Systems”; *Journal of Theoretical and Applied Information Technology*, August 2013. Vol. 54 No.3 © 2005 - 2013 JATIT & LLS. All rights reserved
17. S. Zubair, Y. A. Adediran, S. Misra, **B. A. Salihu**, H. T. Abdulazeez and A. Suleiman (2012). “The effect of network hierarchy in a typical campus area network (CAN) of a university”, *Scientific Research and Essays* Vol. 7(6), pp. 627-635, 16 February, 2012 DOI: 10.5897/SRE11.428 ISSN 1992-2248 ◆2012 Academic Journals
18. Zubair, Suleiman, Norsheila Fisal, Mohammed B. Abazeed, **Bala Alhaji Salihu**, and Adnan Shahid Khan. "Lightweight distributed geographical: a lightweight distributed protocol for virtual clustering in geographical forwarding cognitive radio sensor networks." *International Journal of Communication Systems* (2013). DOI: 10.1002/dac.2635 (IF: 0.712)

19. **Bala Alhaji Salihu**, Yang Dacheng, Umar Mustapha Mala B and Suleiman Zubair “Adaptive Enhanced Physical Downlink Control Channel (EPDDCH) for LTE-Advanced Systems” Journal of Computational Information Systems(2014)
20. **Bala Alhaji Salihu**, DachengYang, Xin Zhang, and Suleiman Zubair, "New Remapping Strategy for PDCCH Scheduling for LTE-Advanced Systems," Journal of Communications, vol. 9, no. 7, pp. 563-571, 2014. Doi: 10.12720/jcm.9.7.563-571
21. **B. A. Salihu**, Y. Dacheng, Z. Xin, S. Zubair, and L. A. Olawoyin, " Scheduling in Interference-Limited Environment for LTE-A Systems," International Journal of Future Generation Communication and Networking, vol. 7, pp. 179-190, 2014.

## 1.2 Conferences

### 1.2.1 National

22. E Patrick, M David, AO Caroline, **S.A Bala**, AJ Adegboyega, AJ Onumanyi , Comparative Study of the Effect of Sensing Parameters on Ozone Gas Absorption-Cross-Section, *2nd International Engineering Conference IEC 20 (1)*, (IEC 2017) Federal University of Technology, Minna, Nigeria, 284-290.
23. *K. P. Dawar, U. A. Usman and B. A. Salihu, "An Enhanced Active Power Control Technique for Interference Mitigation in 5G Uplink Macro-Femto Cellular Network," 2020 IEEE 2nd International Conference on Cyberspac (CYBER NIGERIA), 2021, pp. 85-90, doi: 10.1109/CYBERNIGERIA51635.2021.9428852.*
24. Godwill Udoh, Caroline Alenoghena, and **Bala A. Salihu**, A Review of Computer Network Reliability, International Conference on Information and Communication Technology and Its Applications(ICTA2016)Federal University of Technology, Minna, Nigeria November 28 – 30, 2016
25. Elizabeth N. Onwuka, **Bala A. Salihu**, and Paschal S. Iornenge, Community Detection in Networks: Algorithms and Challenges, International Conference on Information and Communication Technology and Its Applications(ICTA2016)Federal University of Technology, Minna,NigeriaNovember 28 – 30, 2016
26. Elizabeth N. Onwuka, **Bala A. Salihu**, and Sheriff Murtala, A Survey of Influential Nodes Detection Methods in Mobile Phone Network, International Conference on Information and Communication Technology and Its Applications(ICTA2016)Federal University of Technology, Minna, Nigeria November 28 – 30, 2016
27. Godwill Udoh, Caroline Alenoghena, and **Bala A. Salihu**, Computer Network Reliability Analysis of a Dual Ring Network: Federal University of Technology, Minna (Gidan Kwanu Campus) As a Case Study, International Conference on Information and Communication Technology and Its Applications(ICTA2016)Federal University of Technology, Minna, Nigeria November 28 – 30, 2016

28. Elizabeth N. Onwuka, **Bala A. Salihu** & Paschal S. Iornenge. An Enhanced Conductance-Based Approach for Community Detection In Weighted Mobile Phone Networks, Proceedings on Big Data Analytics & Innovation Conference (Peer-Reviewed), Abuja- Nigeria, 2016
29. Elizabeth N. Onwuka, **Bala A. Salihu** & Sheriff Murtala, Improved Influence Factor Scheme for Detecting Influential Nodes in Mobile Phone Network, Proceedings on Big Data Analytics & Innovation Conference (Peer-Reviewed), Abuja- Nigeria, 2016

### 1.2.2 International

30. U. Nelson, B. Salihu, N. Salawu and S. Zubair, "Multiplexing Gains Through Clustering In Cloud Radio Access Network," 2020 International Conference in Mathematics, Computer Engineering and Computer Science (ICMCECS), Ayobo, Ipaja, Lagos, Nigeria, 2020, pp. 1-6. IEEE 2020.
31. M. T. Dare, S. Zubair, B. A. Salihu, M. David and M. Abazeed, "Literature Review of Energy Efficient Transmission in Wireless LANs by Using Low-Power Wake-Up Radio," 2019 15th International Conference on Electronics, Computer and Computation (ICECCO), Abuja, Nigeria, 2019, pp. 1-6. IEEE 2019.
32. ST Hassan, JA Abolarinwa, CO Alenoghena, SA Bala, M David, Intelligent sign language recognition using enhanced fourier descriptor: a case of Hausa sign language, *2017 IEEE 2nd International Conference on Automatic Control and Intelligent Systems (I2CACIS)*. p 104-109 IEEE, 2017
33. Zubair, Suleiman, Norsheila Fisal, Mohammed Abazeed, and **Bala A. Salihu**. "A proposed network management protocol for Cognitive Radio Sensor Networks." International Symposium on Telecommunication Technologies (ISTT), 2012, pp. 88-93. IEEE, 2012.
34. Zubair, S., bnt Fisal, N., Salihu, Y., Yerima, S., & **Salihu, B.** (2011, 24-26 Nov. 2011). "CoWiSMoN: A framework for cognitive wireless sensor mobile network system for emergency rescue management". Paper presented at the 3rd IEEE International Conference Adaptive Science and Technology (ICAST), 2011. Digital Object Identifier: 10.1109/ICASTech.2011.6145177 Publication Year: 2011, Page(s): 237 – 241
35. Zubair, Suleiman; Fisal, Norsheila; Maqbool, Wajahat; Abazeed, Mohammed.B; AbdulAzeed, Hassan T.; **Salihu, Bala A.**, "2013 IEEE Malaysia International Conference on Online Priority Aware streaming framework for Cognitive Radio Sensor Networks," Communications (MICC), , vol., no., pp.234,239,26-28Nov.2013,doi:10.1109/MICC.2013.6805831URL: [http://ieeexplore.ieee.org/xpl/abstractAuthors.jsp?arnumber=6805831&refinements%3D4279100940%26sortType%3Dasc\\_p\\_Sequence%26filter%3DAND%28p\\_IS\\_Number%3A6805784%29](http://ieeexplore.ieee.org/xpl/abstractAuthors.jsp?arnumber=6805831&refinements%3D4279100940%26sortType%3Dasc_p_Sequence%26filter%3DAND%28p_IS_Number%3A6805784%29)
36. Z. Li, Y. Gao, **B. A. Salihu**, P. Li, L. Sang and D. Yang, "Stochastic network calculus analysis of energy harvesting rate in wireless networks with delay and energy storage constraints," 2015 IEEE

26th Annual International Symposium on Personal, Indoor, and Mobile Radio Communications (PIMRC), Hong Kong, 2015, pp. 1600-1605. doi: 10.1109/PIMRC.2015.7343554

37. Z. Li, Y. Gao, **B. A. Salihu**, P. Li, L. Sang and D. Yang, "Network Calculus Delay Bounds in Multi-Server Queueing Networks with Stochastic Arrivals and Stochastic Services," 2015 IEEE Global Communications Conference(GLOBECOM), San Diego, CA, 2015, pp. 1-7.doi: 10.1109/GLOCOM.2015.7417645
38. L. A. Olawoyin, Y. Wu, H. Yang, **B. A. Salihu** and M. A. Abana, "Secrecy Enhancing in Wireless Communication with a Full-Duplexing at the Receiver," 2015 IEEE Global Communications Conference (GLOBECOM), San Diego, CA, 2015, pp. 1-5. doi: 10.1109/GLOCOM.2015.7417880
39. S. Zubair, A. Suleiman, H. T. Abdulazzez, **B. A. Salihu** (2011). *Design and construction of a microcontroller based single axis solar tracker*. Innovations in Science and Engineering .1 (4) 41-47.
40. A. Suleiman, **S. Zubair**, H. T. Abdulazzez, **B. A. Salihu**, Y. Salihu. *Design and Construction of a Simple Microcontroller Based Conference Electronic Voting Machine with Digital Display*. International Journal of Advancements in Research & Technology (IJOART) Volume 1, Issue 2, 145153 ISSN : 2278-7763 (Online)PDF

### 1.3 Book chapter:

41. Suleiman Zubair, Norsheila bnt Faisal , **Bala A. Salihu** (2012) Cross-Layer Considerations for Routing in Cognitive Radio Sensor Networks. 1st UTM-MIMOS Symposium on Advanced Telecommunication Technology. Program Book and Abstracts, Page (36)

Name: Salihu Alhaji Bala

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