



Dr. Rizwan Aslam Butt

Objective	To pursue a challenging research and academic career in the field of Electronics and Communication Engineering to benefit humanity especially Muslim community.
Personal Information	Father's Name Muhammad Aslam Nationality Pakistani Date of Birth 1 st January 1982 N.I.C. No. 42201-0548644-3 Marital Status Married Address R-66, Gulshan-e-Qadri-III, Malir Halt, Karachi-43, Sindh, Pakistan Contact No +923352885709 (call / Whatsapp) Email rizwan.aslam@neduet.edu.pk
Qualification	2015-2018 PhD Electrical Engineering from UTM Malaysia (Achieved Best Postgraduate Student Award and Pro-Chancellor Award) 2011- 2013 M.Engg Telecom from NED UET Pakistan (with 3.89 CGPA) 2007- 2010 MS CS & IT from NED UET Pakistan (with 3.8 CGPA) 2001-2005 B.E. Electronics from NED UET Pakistan (82% marks & Distinction)
Publications	<ul style="list-style-type: none"> ❖ Total JCR Journal Papers = 23 ❖ Total Master List Journal Papers = 06 ❖ Other Scopus / Peer Reviewed Journal = 7 ❖ Conference Papers = 11 ❖ Book Chapters = 01 ❖ Accumulative Impact Factor = 50 (approx.) ❖ H-Index = 12 & i-10th index = 15 <p><u>ISI Indexed Impact Factor (JCR) Journal Papers</u></p> <ol style="list-style-type: none"> 1. Butt, R. A., Idrus, S. M., Qureshi, K. N., Zulkifli, N., & Mohammad, S. H, "Improved Dynamic Bandwidth Allocation Algorithm for XGPON", <i>Journal of Optical Communications and Networking</i>, vol. 9, no. 1, pp. 87-97, 2017. (JCR 2017 IF = 2.742, Q1) 2. Butt, Rizwan Aslam, Sevia Mahdaliza Idrus, Kashif Naseer Qureshi, Pir Meher Ali Shah, and Nadiatulhuda Zulkifli, "An Energy Efficient Cyclic Sleep Control

Framework for ITU PONs." *Optical Switching and Networking*, vol. 27, no. 1, pp.7-17, 2017. (JCR 2017 IF = 1.113, Q3)

3. **Butt, Rizwan Aslam**, Sevia M. Idrus, Zulkifli, N. and M. Waqar Ashraf (2017), "Comprehensive Bandwidth Utilization and Polling mechanism for XGPON", *International Journal of Communication system (Wiley)*, vol. 31, issue. 3, pp. 1-18. (ISI Journal IF = 1.066).
4. Qureshi, Kashif Naseer, Abdul Hanan Abdullah, Omprakash Kaiwartya, Saleem Iqbal, **Rizwan Aslam Butt**, and Faisal Bashir. "A Dynamic Congestion Control Scheme for safety applications in vehicular ad hoc networks." *Computers & Electrical Engineering* (2017). (JCR 2017 IF = 1.747, Q3)
5. **Butt, Rizwan Aslam**, M. Waqar Ashraf, M. Faheem, and Sevia M. Idrus. "Processing efficient frame structure for passive optical network (PON)." *Optical Switching and Networking* 30, November 2018: 85-92. (JCR 2017 IF = 1.113, Q3)
6. Faheem, M., S. B. H. Shah, **R. A. Butt**, B. Raza, M. Anwar, M. W. Ashraf, Md A. Ngadi, and V. C. Gungor. "Smart grid communication and information technologies in the perspective of Industry 4.0: Opportunities and challenges." *Computer Science Review* 30 (2018): 1-30.(Q1 JCR 2017, IF = 3.0)
7. Faheem, M., **R. A. Butt**, B. Raza, M. W. Ashraf, Seema Begum, Md A. Ngadi, and V. C. Gungor. "Bio-inspired routing protocol for WSN-based smart grid applications in the context of Industry 4.0." *Transactions on Emerging Telecommunications Technologies*: e3503. (JCR 2017, Journal IF = 1.606, Q3)
8. M. Waqar Ashraf, Farabi Iqbal, Sevia M. Idrus and **Butt, Rizwan Aslam**, On Spatially-Disjoint Lightpaths in Optical Networks. *Photonic Network Communications*, 2018. (ISI Journal IF = 1.203, Q3)
9. **R. A. Butt**, S. M. Idrus, N. Zulkifli, and M. Waqar Ashraf, "Comprehensive bandwidth utilization and polling mechanism for XGPON," *International Journal of Communication Systems*, vol. 31, no. 3, pp. 1–18, 2017. (JCR IF = 1.717, Q2)
10. **Butt, Rizwan Aslam**, M. Waqar Ashraf, M. Faheem, and Sevia M. Idrus. "Sleep Assistive Dynamic Bandwidth Assignment scheme for XGPON." *Photonic Network Communications*, 2018, (ISI Journal IF = 1.113, Q3)
11. Ashraf, M. Waqar, Sevia M. Idrus, **R. Aslam**, and Farabi Iqbal. "Capacity-bounded lightpath routing in WDM optical networks." *Optical Fiber Technology* 48 (2019): 50-57. (ISI Journal IF = 1.824, Q2)
12. Faheem, M., **R. A. Butt**, B. Raza, M. W. Ashraf, Seema Begum, Md A. Ngadi, and V. C. Gungor. "Energy efficient and reliable data gathering using internet of software-defined mobile sinks for WSNs-based smart grid applications." *Computer Standards & Interfaces*, vol. 66, no. 103341, OCT (2019) (JCR IF = 1.465, Q2)

13. Ashraf, M. Waqar, Sevia M. Idrus, Rizwan Aslam Butt, and Farabi Iqbal. "Post-Disaster least loaded lightpath routing in elastic optical networks." *International Journal of Communication Systems* (2019): e3920. (ISI Journal IF = 1.824, Q2)
14. **Butt, Rizwan Aslam**, M. Faheem, Asad Arfeen, M. Waqar Ashraf, and Mehwish Jawed. "Machine learning based dynamic load balancing DWBA scheme for TWDM PON." *Optical Fiber Technology* 52 (2019): 101964. . (JCR IF = 1.2, Q2)
15. Faheem, Muhammad, **Rizwan Aslam Butt**, Basit Raza, Hani Alquhayz, Muhammad Zahid Abbas, Md Asri Ngadi, and Vehbi Cagri Gungor. "A Multiobjective, Lion Mating Optimization Inspired Routing Protocol for Wireless Body Area Sensor Network Based Healthcare Applications." *Sensors* 19, no. 23 (2019): 5072. (JCR IF = 2.475, Q2)
16. Ali, Kamran, Qi Zhang, **Rizwan Aslam Butt**, Khalid Hussain Mohammadani, Muhammad Faheem, Noor Ul Ain, Feng Tian, and Xiangjun Xin. "Traffic-Adaptive Inter Wavelength Load Balancing for TWDM PON." *IEEE Photonics Journal* (2019). (JCR IF = 2.729, Q1)
17. Faheem, Muhammad, **Rizwan Aslam Butt**, Basit Raza, Hani Alquhayz, Muhammad Waqar Ashraf, Syed Bilal Shah, Md Asri Ngadi, and Vehbi Cagri Gungor. "QoS-RP: A Cross-Layer QoS Channel-Aware Routing Protocol for the Internet of Underwater Acoustic Sensor Networks." *Sensors* 19, no. 21 (2019): 4762. (JCR IF = 2.475, Q2)
18. **Butt, Rizwan Aslam**, M. Faheem, and M. Waqar Ashraf. "Efficient upstream bandwidth utilization with minimum bandwidth waste for time and wavelength division passive optical network." *Optical and Quantum Electronics*, 52 (1):14, (2020). (JCR IF = 1.54, Q2)
19. Faheem, M., **Butt, R.A.**, Raza, B., Alquhayz, H., Ashraf, M.W., Raza, S. and Ngadi, M.A.B., 2020. FFRP: Dynamic Firefly Mating Optimization Inspired Energy Efficient Routing Protocol for Internet of Underwater Wireless Sensor Networks. *IEEE Access*, 8, pp.39587-39604, (2020) (JCR IF = 4.098, Q1)
20. Mohammadani, Khalid, **Rizwan Aslam Butt**, Kamran Ali Memon, Fayaz Hassan, Abdul Majeed, and Rajesh Kumar. "Highest Cost First-Based QoS Mapping Scheme for Fiber Wireless Architecture." In *Photonics*, vol. 7, no. 4, p. 114. Multidisciplinary Digital Publishing Institute, 2020. (JCR IF= 2.14)
21. Memon, Kamran Ali, **Rizwan Aslam Butt**, Khalid Hussain Mohammadani, Bhagwan Das, Sibghat Ullah, Saleemullah Memon, and Noor ul Ain. "A Bibliometric Analysis and Visualization of Passive Optical Network Research in the Last Decade." *Optical Switching and Networking* 39 (2020): 100586. (JCR 2017 IF = 1.113, Q3)
22. Muhammad Faheem, **Rizwan Aslam Butt**, Rashid Ali, Basit Raza, Md. Asri Ngadi, Vehbi Cagri Gungor, CBI4.0: A cross-layer approach for big data gathering for active monitoring and maintenance in the manufacturing industry 4.0, **Journal of Industrial Information Integration**, Volume 24, 2021, pp: 100236.
23. **Butt, R. A.**, Faheem, M., Ashraf, M. W., Arfeen, A., Memon, K. A., & Khawaja, A. (2021). Sleep-aware wavelength and bandwidth assignment scheme for TWDM

ISI Indexed Master List Journal Papers

24. Rehman, Shahid Ur, Sevia M. Idrus, Raja Zahillah Radzi, Mohd Shahrill Salleh, and **Rizwan Aslam Butt**. "Effect of channel spacing on the signal quality for bi-directional TWDM PON." *JURNAL TEKNOLOGI* 78, no. 3 (2016): 281-286. **(ISI Master List Journal)**
25. M. Waqar Ashraf, Farabi Iqbal, Sevia M. Idrus and **Butt, Rizwan Aslam**, M. Faheem, "Disaster-Resilient Optical Survivability: a Comprehensive Survey" *MDPI Photonics*, 2018. **(ISI Master List Journal)**
26. **Butt, Rizwan Aslam**, M. Faheem, M. Waqar Ashraf, Attaullah Khawaja and Basit Raza." Attack-Aware Dynamic Upstream Bandwidth Assignment Scheme for Passive Optical Network." *Journal of Optical Communications*, 2019, <https://doi.org/10.1515/joc-2019-0142> **(ISI Master List Journal)**
27. **Rizwan A. Butt**, Sevia M. Idrus, Shahid-Ur Rehman, Pir Meher Ali Shah and Zulkifli, N. (2017), "Comprehensive Polling and Scheduling Mechanism for Long Reach Gigabit Passive Optical Network", *Journal of Optical Communication*, DOI 10.1515/joc-2017-0026, 2017. **(ISI Master List Journal)**
28. **Butt, Rizwan Aslam**, M. Waqar Ashraf, M. Faheem, and Sevia M. Idrus. "A Survey of Dynamic Bandwidth Assignment Schemes for TDM-Based Passive Optical Network." *Journal of Optical Communications*. **(ISI Master List Journal)**
29. Faheem, Muhammad, Ghulam Fizza, Muhammad Waqar Ashraf, **Rizwan Aslam Butt**, Md Asri Ngadi, and Vehbi Cagri Gungor. "Big Data acquired by Internet of Things-enabled industrial multichannel wireless sensors networks for active monitoring and control in the smart grid Industry 4.0." *Data in Brief* 35 (2021): 106854.
30. Mohammadani, Khalid H., Rizwan A. Butt, Kamran A. Memon, Azhar A. Pirzado, Muhammad Faheem, Adeel Abro, Babar Ali, and Noor-ul Ain. "A QoS provisioning architecture of fiber wireless network based on XGPON and IEEE 802.11 ac." *Journal of Optical Communications* (2021). **(ISI Master List Journal)**

Other Indexed Journal Papers

31. **Butt, R. A.**, Idrus, S. M., Radzi, R. Z., & Qureshi, K. N. (2016). Energy Efficient Frame Structure for Gigabit Passive Optical Networks. *International Journal of Electrical and Computer Engineering*, 6(6), 2971. **(Scopus)**
32. **Butt, R. A.**, Hasunah Mohammad, S., Idrus, S. M., & Rehman, S. U. (2015). Evolution of Access Network from Copper to PON—Current Status, *ARPN Journal of Engineering and Applied Sciences*. 10 (18). **(Scopus)**
33. **Butt, Rizwan Aslam**, Muhammad Yasir Anwar, Muhammad Waqar Ashraf, and

Muhammad Zuhair Arfeen. "A novel scheduling and polling mechanism for upstream bandwidth assignment in a Passive Optical Network." *Technical Journal*, 23, no. 01 (2018): 64-73. (HEC Recognized 'Y' Category Journal)

34. **Butt, Rizwan Aslam**, M. Waqar Ashraf, M. Faheem, and Sevia M. Idrus , (2018). Survey of Energy Conservation Schemes for Present and Next Generation Passive Optical Networks. *Journal of communication (JCM)*, vol. 13, issue. 3, pp. 129-138. (Indexed in Scopus and Ulrich)
35. Anwar, Muhammad, Abdul Hanan Abdullah, **Rizwan Aslam Butt**, Muhammad Waqar Ashraf, Kashif Naseer Qureshi, and Fasee Ullah. "Securing Data Communication in Wireless Body Area Networks Using Digital Signatures." *Technical Journal* 23, no. 02 (2018): 50-55. (HEC Recognized 'Y' Category Journal)
36. **Butt, R. A.**, Ali, S. M. U., & Shahid ur Rehman, S. Cost effective WSN Network Monitoring and Control using Modified SNMP. *International Journal of Emerging Technology and advance Engineering (IJETAE)* Vol, 3, 735-740. (Peer Reviewed Journal)
37. Ismail, N. A., Sevia Mahdaliza Idrus, **R. A. Butt**, F. Iqbal, A. M. Zin, and F. Atan. "Performance evaluation of comprehensive bandwidth utilization for 10-gigabit passive optical network." *Bulletin of Electrical Engineering and Informatics* 8, no. 3 (2019): 1047-1052.

Conference Papers

38. **Rizwan Aslam Butt**, Siti Hasunah Mohammad, Sevia M. Idrus, Shahid Ur Rehman (2015). "Evolution of Access Networks from Copper to PON-Current Status". International Conference on Electrical and Electronic Engineering (IC3E), 10-11 Aug 2015, Malacca, Malaysia.
39. **Butt, R. A.**, Idrus, S. M., & Zulkifli, N. (2016). Comparative analysis of cyclic and watchful sleep modes for GPON. In *Photonics (ICP), 2016 IEEE 6th International Conference on* (pp. 1-3). IEEE.
40. Hasunah Mohammad S., **Aslam Butt R.**, Zulkifli N. and Mahdaliza Idrus S. "Extended WiMAX QoS-Aware Scheduling for Integrated CWDM-PON and WiMAX Network". International Conference on Electrical and Electronic Engineering (IC3E 2015), 10-11 Aug 2015, Malacca, Malaysia.
41. **Butt, R. A.**, & Buriro, A. (2011, October). Secure LAN management with SNMPv2 over IPsec. In *Telecommunication Systems, Services, and Applications (TSSA), IEEE 2011 6th International Conference on* (pp. 271-274).
42. **Butt, R. A.**, & Ali, S. M. U. (2013). Semantic Mapping and Motion Planning with Turtlebot Roomba. In *IOP Conference Series: Materials Science and Engineering*

(Vol. 51, No. 1, p. 012024). IOP Publishing.

43. N. A. Ismail, N.A.M. Zin, S.M. Idrus, **R.A. Butt**, F. Iqbal, "Review on Dynamic Bandwidth Allocation and Energy Efficient Schemes for ITU PON," in *2018 International Conference on Radar, Antenna, Microwave, Electronics, and Telecommunications (ICRAMET)*, 2018, pp. 131–134.
44. Zin, A. M., S. M. Idrus, N. A. Ismail, A. Ramli, and **R. A. Butt**. "Energy Efficient Performance Evaluation of XG-PON for Sustainable Green Communication Infrastructure." In *2018 Progress in Electromagnetics Research Symposium (PIERS-Toyama)*, pp. 950-955. IEEE, 2018.
45. Faheem, Muhammad, Muhammad Umar, **Rizwan Aslam Butt**, Basit Raza, Md Asri Ngadi, and Vehbi Cagri Gungor. "Software Defined Communication Framework for Smart Grid to Meet Energy Demands in Smart Cities." In *2019 7th International Istanbul Smart Grids and Cities Congress and Fair (ICSG)*, pp. 51-55. IEEE, 2019.
46. Faheem, Muhammad, Muhammad Waqar Ashraf, **Rizwan Aslam Butt**, Basit Raza, Md Asri Ngadi, and Vehbi Cagri Gungor. "Ambient Energy Harvesting for Low Powered Wireless Sensor Network based Smart Grid Applications." In *2019 7th International Istanbul Smart Grids and Cities Congress and Fair (ICSG)*, pp. 26-30. IEEE, 2019.
47. **Butt, Rizwan Aslam**, Mehwish Jawaid, M. Waqar Ashraf, and Muhammad Faheem. "Load Adaptive Dynamic Wavelength and Bandwidth Assignment for TWDM PON." In *2019 International Workshop on Fiber Optics in Access Networks (FOAN)*, pp. 101-105. IEEE, 2019.
48. Ismail, N. A., Sevia Mahdaliza Idrus, **R. A. Butt**, F. Iqbal, A. M. Zin, and F. Atan. "Performance evaluation of comprehensive bandwidth utilization for 10-gigabit passive optical network." *Bulletin of Electrical Engineering and Informatics* 8, no. 3 (2019): 1047-1052.
49. Edeagu, Samuel O., Rizwan A. Butt, Sevia M. Idrus, and Nathan J. Gomes. "Performance of PON Dynamic Bandwidth Allocation Algorithm for Meeting xHaul Transport Requirements." In *2021 International Conference on Optical Network Design and Modeling (ONDM)*, pp. 1-6. IEEE, 2021.

Book Chapters

50. **Rizwan Aslam Butt**, Sevia M. Idrus and Nadiatulhuda Zulkifli (2017). Book chapter in *Networks of the Future: Architectures, Technologies, and Implementations*. Published by CRC Press, Taylor and Francis Group. ISBN# 978-1-4987-8397-2.

Teaching Experience	<ul style="list-style-type: none"> ✓ Currently working as Assistant Professor in Electronic Engineering Department at NED UET Karachi from Jan 2010 and teaching/taught following subjects ; <ul style="list-style-type: none"> ➤ Teaching Digital Signal Processing to Third year Electronic Engineering in Fall 2019. ➤ Taught Mechatronics course to Master of Engineering (Electronics) students in Spring 2018, Fall 2018, and Spring 2019 semesters. ➤ Taught Telecommunication Networks to Third year Telecom Engineering in Spring 2018 and 2019. ➤ Taught Digital Signal Processing to Third year Electronic Engineering in Fall 2018. ➤ Teaching Optical Fiber Communications course to MS Telecommunication (Week End Program) students in Spring 2019 semester. ➤ Teaching Research Methodology and Optical Communication course to PhD students in Spring 2019. ➤ Taught Research Methodology Course to PhD students in Fall 2018. ➤ Taught Mechatronics course to Master of Engineering (Electronics) students in Fall 2018 semester. ➤ Taught Mechatronics course to Master of Engineering (Electronics) students in Spring 2018 semester. ➤ Taught Mobile Telephone System course to Master of Engineering (Telecommunication) students in Spring 2018 semester. ➤ Taught Telecommunication Networks to Third year Telecom Engineering students. ➤ Taught Basic Electronics to First year Computer Engineering and Computer Science departments. ➤ Taught / Teaching Amplifiers and Oscillators full course to Second Year Telecom ➤ Taught Digital Logic Design full course to Second year Telecom. ➤ Taught Telecom Management Networks Full course to Final Year Telecom. ➤ Taught Electronics-I Full Course to First Year CIS department. ➤ Taught Digital Electronics to Second Year Telecom department.
Research Supervision	<ul style="list-style-type: none"> ➤ Co-Supervising 03 PhD students at NED UET Pakistan with Prof. Dr. Attaullah Khawaja as main Supervisor. ➤ Supervising 01 PhD student as main Supervisor at NED UET Karachi. ➤ Supervising 02 Independent Study Project students in M.Engg Electronics at NED UET Pakistan in 2019. ➤ Supervised 04 Independent Study Project students in M.Engg Telecommunication

	<p>and 03 student in M.Engg Electronics at NED UET Pakistan in 2019.</p> <ul style="list-style-type: none"> ➤ Co-Supervising 02 PhD students at UTM Malaysia with Prof. Dr. Sevia as main Supervisor.
Journal Article Reviewer	<ul style="list-style-type: none"> ✓ International Journal of Electrical and Computer Engineering (IJECE). ✓ Optical Switching and Networking ✓ Fiber and Integrated Optics ✓ Optical Fiber Technology (OFT) ✓ Transactions on Emerging Telecommunications Technologies ✓ IEEE Access ✓ International Journal of Communication System (IJCS) ✓ Journal of Microprocessors and Microsystems ✓ Telecommunication Systems
Conference TPC member	<ul style="list-style-type: none"> ✓ International Conference on Photonics ICP 2016 (Sarawak, Malaysia) ✓ Fiber Optics Access Network (FOAN) 2019 (Sarajevo, Bosnia)
Research Grants	<ul style="list-style-type: none"> ✓ Got start-up Research grant (SRGP 1981) for one year of PKR 280000/- from Higher Education Commission Pakistan. ✓ Have submitted a GCF Grant which is under review. ✓ Have submitted a NRPU grant which is under review.
Awards	<ul style="list-style-type: none"> ✓ Received Best Researcher 2019 Award from NED University of Engineering and Technology, Karachi Pakistan ✓ Received Pro-Chancellor Award from UTM Malaysia in its 60th Convocation in 2018. ✓ Received Best Postgraduate Student Award from UTM Malaysia in its 60th Convocation in 2018.
Industry Job Experience	<ul style="list-style-type: none"> ✓ Worked for 04 years with PTCL as Engineer Operations in different departments and posts as follows; <ul style="list-style-type: none"> ➤ Operations Engineers Landhi Exchange Karachi. ➤ Operations Engineers Clifton-II Exchange Karachi. ➤ Engineer and Senior Engineer (Look after) in Optical Fiber System and Digital Cross connect (DXX), Pak-Capital Exchange Karachi. ➤ Engineer and Senior Engineer (Look after) Regional NOC Pak-Capital Exchange Karachi.