Salman Abdul Ghafoor

Professor

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Since 2015

About

PEC

Dr. Salman Abdul Ghafoor is working as Professor in the School of Electrical Engineering and Computer Science. Dr. Salman Abdul Ghafoor has a PhD in Fiber Optic Communications. Dr. Salman Abdul Ghafoor has published 88 research articles & conference papers having a citation count of 778, carried out 3 projects and filed 1 intellectual property.

Qualifications

PhD in Fiber Optic Communications University of Southampton , United Kingdom	2008 - 2012
MSc in Electrical Engineering University of Nottingham , United Kingdom	2006 - 2007
BSc in Electrical Engineering UET Peshawar , Pakistan	2002 - 2006
Experience	
Professor	2022- Present
School of Electrical Engineering and Computer Science	
Associate Professor	2019 - 2022
School of Electrical Engineering and Computer Science	
Assistant Professor	2017 - 2019
School of Electrical Engineering and Computer Science	
Assistant Professor	2013 - 2017
School of Electrical Engineering and Computer Science	
Assistant Professor	2012 - 2013
School of Electrical Engineering and Computer Science	
Professional Memberships	

Research Projects	
National Projects	
Solar-Powered Desalination for Sustainable Freshwater Production Funding Agency: N/A Amount: PKR 61,695.00 Status: Completed	
Design and Development of USV Swarm System for Enhanced Maritime Capabilities Funding Agency: RIC NUST Amount: PKR 1,000,000.00 Status: Approved_inprocess	2024
Smart Helmet for Improved Safety Funding Agency: NUST Amount: PKR 199,000.00 Status: Completed International Projects	2020
Research Articles	
Increasing capacity of intra-datacenter communications using a novel combination of DQPSK and PAM-4 modulation formats Yuxuan Yi Salman Abdul Ghafoor Abdullah G. Alharbi Jawad Mirza Muhammad Imran Optical Fiber Technology, Volume:94, Article Number 104309 Impact Factor: 2.700 Quartile: 2 DOI: https://doi.org/10.1016/j.yofte.2025.104309	2025
DeepFins: Capturing dynamics in underwater videos for fish detection Ahsan Jalal Ahmad Salman Ajmal Mian Salman Abdul Ghafoor Faisal Shafait Ecological Informatics, Volume 86, Article Number 103013 Impact Factor: 5.900 Quartile: 1 Citations: 5 DOI: https://doi.org/10.1016/j.ecoinf.2025.103013	2025
A ground-to-GEO-to-LEO satellite optical wireless communication link based on a spectrally efficient and secure modulation scheme Chen Xu Umair Ali Khan Salman Abdul Ghafoor Jawad Mirza Abdulah Jeza Aljohani Imran Aziz Frontiers in Physics, Volume 13, Article Number 1562799 Impact Factor: 1.900 Quartile: 2 DOI: 10.3389/fphy.2025.1562799	2025
Relay aided UWOC-SMF-FSO based hybrid link for underwater wireless optical sensor network Jawad Mirza Ahmad Atieh Benish Kanwal Salman Abdul Ghafoor Ahmad Almogren Firdos Kanwal Imran Aziz Optical Fiber Technology, Volume 89, Article Number 104045 Impact Factor: 2.600 Quartile: 2 Citations: 8 DOI: https://doi.org/10.1016/j.yofte.2024.104045	2025
Single-longitudinal mode quadruple wavelength C+L-band erbium-doped fiber laser based on the pairs of reflective fiber bragg gratings Jawad Mirza Ahmed Atieh Benish Kanwal Salman Abdul Ghafoor Tasleem Kausar Muhammad Imran Ahmad Almogren Firdos Kanwal Imran Aziz Physica scripta, Volume 100, Number 1, Article Number 015507 Impact Factor: 2.600 Quartile: 2 Citations: 3 DOI: 10.1088/1402-4896/ad96fb	2024
Single laser based novel wavelength shift keying scheme for ground to satellite bidirectional links Faria Salman Abdul Ghafoor Jawad Mirza Abdulah Jeza Aljohani Imran Aziz Physica Scripta, Volume:99, Issue:12, Pages: 10 Impact Factor: 2.6 Quartile: 2 Citations: 1	2024
DOI: https://doi.org/10.1088/1402-4896/ad8e94 A dual-band high-gain beam steering antenna array for 5G sub-6 GHz base station	2024

Salman Ilahi Siddiqui Shahid Bashir Awais Khan Salman Abdul Ghafoor Imran Aziz

Scientific Reports , Volume 14, Issue 1, Article Number 26517

Impact Factor: 3.800 | Quartile: 1 | Citations: 3

Heliyon , Volume 10, Issue 3, Article Number e25120

Quantum long short-term memory (QLSTM) vs. classical LSTM in time series forecasting: a comparative study in solar power forecasting Saad Zafar Khan Nazeefa Muzammil Salman Abdul Ghafoor Haibat Khan Niazi Syed Mohammad Hasan Zaidi Abdulah Jeza Aljohani Imran Aziz Fination in Physics Nelsons 40, Article Number 4400400	2024
Frontiers in Physics, Volume 12, Article Number 1439180 Impact Factor: 1.900 Quartile: 2 Citations: 5 DOI: https://doi.org/10.3389/fphy.2024.1439180	
A bidirectional free space optical link for last-mile terrestrial access links employing a novel wavelength shift keying technique	2024
Salman Abdul Ghafoor Arsalan Ahmad Jawad Mirza Abdulah Jeza Aljohani Changjia Qu Imran Aziz Optical and Quantum Electronics, Volume:56, Issue:8, Article Number: 1367, Pages: 12 Impact Factor: 3.3 Quartile: 2 Citations: 4 DOI: 10.1007/s11082-024-07279-6	
Underwater temperature and pressure monitoring for deep-sea SCUBA divers using optical techniques Jawad Mirza Firdos Kanwal Umair Ahmad Salaria Salman Abdul Ghafoor Ahmad Atieh Ahmad Almogren Anwar-ul Haq Benish Kanwal Frontiers in Physics, Volume:12, Pages: 09 Impact Factor: 1.9 Quartile: 2 Citations: 12 DOI: 10.3389/fphy.2024.1417293	2024
Modeling and analysis of single-mode widely tunable all-fiber Ho-doped CW master oscillator power	2024
amplifier system Jawad Mirza Umair Ahmad Salaria Salman Abdul Ghafoor Ahmad Atieh Benish Kanwal Ahmad Almogren Imran Aziz Physica Scripta, Volume 99, No. 8, Article Number 085512 Impact Factor: 2.600 Quartile: 2 DOI: 10.1088/1402-4896/ad5c18	
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Performance Enhancement of Er–Yb: Co-doped Waveguide Amplifier Employing Backward Pumping in the Presence of Energy Transfer Upconversion Jawad Mirza Aadil Raza Ahmad Atieh Salman Abdul Ghafoor Abdullah J Alharbi Waqas Imtiaz Arabian Journal for Science and Engineering, Volume:49, Issue:5, Page:6707-6713 Impact Factor: 2.9 Quartile: 2 DOI: 10.1007/s13369-023-08440-1	2024
Combined transmission of PPM and WSK modulated optical signal over free space optical link enabling physical layer security Faria Jawad Mirza Abdulah Jeza Aljohani Muhammad Ijaz Salman Abdul Ghafoor Optik, Volume 302, Article Number 171748 Impact Factor: 3.100 Quartile: 2 Citations: 8 DOI: https://doi.org/10.1016/j.ijleo.2024.171748	2024
Symbol error rate minimization using deep learning approaches for short-reach optical communication networks Muhammad Iqbal Salman Abdul Ghafoor Arsalan ahmad Abdulah Jeza Aljohani Jawad Mirza Imran Aziz Luca Poti Frontiers in Physics, Volume: 12, Pages: 12 Impact Factor: 3.1 Quartile: 2 Citations: 5 DOI: 10.3389/fphy.2024.1387284	2024
Pair induced quenching in high concentration Holmium-doped fiber amplifiers Jawad Mirza Salman Abdul Ghafoor Ahmad Almogren Umair Ahmad Salaria Benish Kanwal Imran Aziz Ahmad Atieh Physica Scripta, Volume 99, Issue 5, Article Number 055513 Impact Factor: 2.900 Quartile: 2 Citations: 2	2024
DOI: 10.1088/1402-4896/ad36f5 Multi-modal LSTM network for anomaly prediction in piston engine aircraft Waqas Rauf Khattak Ahmad Salman Salman Abdul Ghafoor Seemab Latif	2024

A full duplex LG modes enabled millimeter-wave based FSO communication system for disaster zone Saeed Iqbal Aadil Raza Mohammad Kaleem Muhammad Iqbal Muhammad Adeel Salman Abdul Ghafoor	2024
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Applied Sciences , Volume 14, Issue 1, Article Number 306	
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cascaded lasers implemented using fiber Bragg gratings	
Benish Kanwal Ahmad Atieh Salman Abdul Ghafoor Muhammad Sajid Jawad Mirza	
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Jawad Mirza Ahmad Atieh Salman AlQahtani Salman Ghafoor	
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Salman Abdul Ghafoor Sher Afraz Aadil Raza Muhammad Fasih Uddin Butt	
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Computers, Materials and Continua, Volume 75, Issue 1, Pages 911-925 Impact Factor: 3.860 | Quartile: 2 | Citations: 7 DOI: https://doi.org/10.32604/cmc.2023.033866 2023 400 Gbps/λ PAM-4 data transmission over FSO link by employing space division multiplexing for data center interconnects using LG modes enabled VCSELs Aadil Raza Saeed Iqbal Muhammad Iqbal Jawad Mirza Salman Ghafoor Ahmad Atieh Optical and Quantum Electronics, Volume 55, Issue 3, Article Number 283 Impact Factor: 2.794 | Quartile: 2 | Citations: 9 DOI: https://doi.org/10.1007/s11082-023-04572-8 2022 Radio over plastic optical fibers - A tutorial and review Usama Adnan Zaheer Abbas Aamir Gulistan Salman Ghafoor Journal of Optical Communications, Pages 1-12 Impact Factor: N/A | Citations: 1 DOI: https://doi.org/10.1515/joc-2022-0064 A Robust Nonlinear Sliding Mode Controller for a Three-Phase Grid-Connected Inverter with an LCL 2022 Abu Sufyan Mohsin Jamil Salman Abdul Ghafoor Qasim Awais Hafiz Ali Ahmad Ashraf Ali Khan Hassan Abouobaida Energies, Volume 15, Issue 24, Article Number 9428 Impact Factor: 3.252 | Quartile: 3 | Citations: 20 DOI: https://doi.org/10.3390/en15249428 Design and analysis of redundant optical comb for data center networks 2022 Ahmad Atieh Benish Kanwal Salman Abdul Ghafoor Muhammad Sajid Jawad Mirza Optical and Quantum Electronics, Volume 55, No. 1, Article Number 58 Impact Factor: 2.794 | Quartile: 2 | Citations: 3 DOI: https://doi.org/10.1007/s11082-022-04387-z 2022 Performance Enhancement of Praseodymium Doped Fiber Amplifiers Abdullah G. Alharbi Jawad Mirza Mehak Raza Salman Abdul Ghafoor Computers, Materials and Continua, Volume 73, Issue 3, Pages 5411-5422 Impact Factor: 3.860 | Quartile: 2 | Citations: 11 DOI: 10.32604/cmc.2022.029317 Design and Analysis of an O+E-Band Hybrid Optical Amplifier for CWDM Systems 2022 Benish Kanwal Ammar Armghan Salman Abdul Ghafoor Ahmad Atieh Muhammad Sajid Tasleem Kausar Jawad Mirza Yun Lu Micromachines, Volume 13(11), Article Number 1962 Impact Factor: 3.523 | Quartile: 2 | Citations: 5 DOI: https://doi.org/10.3390/ mi13111962 2022 A Novel 60 Gbps Bidirectional Free Space Optical Link Based on a Single Laser Source Salman Abdul Ghafoor Jawad Mirza Tasleem Kousar Khurram Karim Qureshi Arabian Journal for Science and Engineering, Volume 47, Issue 11, Pages 14721-14729 Impact Factor: 2.807 | Quartile: 2 | Citations: 12 DOI: https://doi.org/10.1007/s13369-022-06975-3 Design of L + U-band Erbium-doped fiber amplifier based on a single S-band forward pump source 2022 Jawad Mirza Salman Abdul Ghafoor Ahmad Salman Nazish Habib Khurram Karim Qureshi International Journal of Communication Systems, Volume 35, Issue13, Article Number e5250 Impact Factor: 1.882 | Quartile: 3 | Citations: 7 DOI: 10.1002/dac.5250 Performance Enhancement of Ytterbium-doped Fiber Amplifier Employing a Novel Dual-stage in-band 2022

Jawad Mirza Salman Abdul Ghafoor Ammar Armghan Osama I. Elhamrawy Laiq Jamal Musab Magam Sharif Iqbal Mitu Sheikh Khurram Karim Qureshi Micromachines, Volume 13(9), Article Number 1488

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2022

Jawad Mirza Ahmad Atieh Benish Kanwal Salman Abdul Ghafoor

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Performance Optimization of Holmium Doped Fiber Amplifiers for Optical Communication Applications in 2–2.15 µm Wavelength Range Abdullah G. Alharbi Firdous Kanwal Salman Ghafoor Nazish Habib Benish Kanwal Ahmad Atieh Tasleem Kousar Jawad Mirza Photonics, Volume 9(4), Article Number 245	2022
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Impact Factor: 3.310 Quartile: 2 Citations: 6 DOI: 10.1002/ett.4405	
Widely tunable and switchable multiwavelength erbium-doped fiber laser based on a single ring cavity	2022
Jawad Mirza Salman Abdul Ghafoor Ahmad Atieh Benish Kanwal Khurram Karim Qureshi	
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Analog Radio Over Fiber-Aided Multi-Service Communications for High-Speed Trains	2022
Yichuan Li Salman Abdul Ghafoor Mohammed El-Hajjar	
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Design of a Continuous-Wave Ytterbium-Doped Tunable Fiber Laser Pump for Thulium-Doped Fiber Amplifiers	2022
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Jawad Mirza Abdulah Jeza Aljohani Aadil Raza Saeed Iqbal Salman Abdul Ghafoor	
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Impact Factor: 0.890 Quartile: 4 Citations: 32 DOI: 10.1007/s10043-021-00706-z	
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throughput body area network architecture based on optical code division multiple access	
Jawad Mirza Salman Abdul Ghafoor Waqas Ahmad Ahmad Salman Khurram Karim Qureshi Optical Review, Volume 28, Pages 525-537	
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A novel wideband radio frequency measurement based on photonic signal processing Ammar Khalid Abdulah Jeza Aljohani Salman Abdul Ghafoor Microwave and Optical Technology Letters, Volume 63(4), Pages 1152-1159 Impact Factor: 1.311 Quartile: 4 Citations: 1 DOI: http://dx.doi.org/10.1002/mop.32734	2021
Design and optimization of a microwave photonic filter exploiting differential mode group delay of a multi-mode fiber Jawad Mirza Ahmad Atieh Abdulah Jeza Aljohani Salman Ghafoor Optical Review, Volume 28, No. 2, Pages 199-206 Impact Factor: 1.047 Quartile: 4 Citations: 2 DOI: https://doi.org/10.1007/s10043-021-00650-y	2021
Self restorable intra data center interconnect based on multimode fiber and free-space optics Salman Ghafoor Jawad Mirza Aadil Raza Ahmad Atieh Saeed Iqbal Optical Engineering, Volume 60(3), Article Number 036113 Impact Factor: 1.352 Quartile: 4 Citations: 5 DOI: https://doi.org/10.1117/1.OE.60.3.036113	2021
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All-Optical Multi-Wavelength Regenerator Based on Four-Wave Mixing Muhammad Usama Khan Abdulah J. Aljohani Aamir Gulistan Salman Ghafoor Optical Engineering, Volume 60, No.3, Article Number 036102 Impact Factor: 1.352 Quartile: 4 Citations: 3 DOI: 10.1117/1.OE.60.3.036102	2021
A Novel Regeneration Technique for Free Space Optical Communication Systems Abdulah Jeza Aljohani Jawad Mirza Salman Ghafoor IEEE Communications Letters, Volume 25, No. 1, Pages 196-199 Impact Factor: 3.553 Quartile: 2 Citations: 27 DOI: 10.1109/LCOMM.2020.3029591	2021
Design and Analysis of a 32 x 5 Gbps Passive Optical Network Employing FSO Based Protection at the Distribution Level Jawad Mirza Waqas A Imtiaz Abdulah Jeza Aljohani Ahmed Atieh Salman Ghafoor Alexandria Engineering Journal, Volume 59, Issue 6, Pages 4621-4631 Impact Factor: 3.732 Quartile: 1 Citations: 38 DOI: https://doi.org/10.1016/j.aej.2020.08.020	2020
A full duplex ultrawideband over free-space optics architecture based on polarization multiplexing and wavelength reuse Jawad Mirza Ashiq Hussain Salman Ghafoor Microwave and Optical Technology Letters, Volume 62, Issue 12, Pages 3999-4006 Impact Factor: 1.392 Quartile: 4 Citations: 25	2020

Linearly polarised modes enabled PAM-4 data transmission over few-mode fibre for data centre interconnect	2020
Saeed Iqbal Muhammad Iqbal Aadil Raza Jawad Mirza Salman Ghafoor M F U Butt M. El Hajjar	
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Impact Factor: 1.314 Quartile: 4 Citations: 5 DOI: 10.1049/el.2020.1848	
A Full-Duplex Ultra-Wideband Over Multimode Fiber Link for Internet of Things Based Smart Home Applications	2020
Jawad Mirza Ashiq Hussain Salman Ghafoor	
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A full-duplex radio over fiber architecture employing 12 Gbps 16 × 16 optical multiple input multiple output for next-generation communication networks	2020
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B. Kanwal Jawad Mirza Salman Ghafoor	
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Microwave photonic filtering based on optical carrier suppression modulation Faizan Umar Jawad Mirza Salman Abdul Ghafoor	2020
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Impact Factor: 1.392 Quartile: 4 Citations: 3	
DOI: 10.1002/mop.32024	
All-Optical Regenerative Technique for Width Tunable Ultra-Wideband Signal Generation	2019
Jawad Mirza Ashiq Hussain Salman Ghafoor	
Photonic Network Communications, Volume 38, Issue 1, Pages 98-107	
Impact Factor: 1.750 Quartile: 3 Citations: 8 DOI: 10.1007/s11107-018-0818-0	
Polarization Multiplexing-Based Ultra-Wideband Over Fiber Communication Employing Direct	2019
Modulation and Carrier Re-Use	
Salman Ghafoor IEEE Communications Letters , Vol. 23 , No. 6, PP. 1008-1011	
Impact Factor: 3.419 Quartile: 2 Citations: 4	
DOI: 10.1109/LCOMM.2019.2914049	
All-optical generation and transmission of multiple ultrawideband signals over free space optical link	2019
Jawad Mirza Ashiq Hussain Salman Ghafoor	
Optical Engineering, Volume 58, Issue 5, Article Number 056103	
Impact Factor: 1.113 Quartile: 3 Citations: 31 DOI: 10.1117/1.OE.58.5.056103	
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Rizwan Ahmad Afnan Riaz Salman Ghafoor Telecommunication Systems , DOI 10.1007/s11235-019-00558-8, pp. 1-9	
Impact Factor: 1.734 Quartile: 3 Citations: 4	
DOI: DOI 10.1007/s11235-019-00558-8	
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Yichuan Li Katla Satyanarayana Mohammed El-Hajjar Lajos Hanzo Salman Ghafoor	
IEEE Transactions on Vehicular Technology, Volume 68, Issue 3, Pages 2802-2813	
Impact Factor: 5.339 Quartile: 1 Citations: 21 DOI: 10.1109/TVT.2019.2893589	
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Polarization multiplexing based duplex radio-over-fiber link for millimeter wave signal transmission to a ring of multiple radio access units Tayyab Mehmood Hina Qayyum Salman Ghafoor Frontiers of Information Technology & Electronic Engineering, Volume 20, Issue 2, Pages 300-306	2019
Impact Factor: 1.604 Quartile: 2 Citations: 3 DOI: 10.1631/FITEE.1700056	
Millimeter-Wave Signal Generation and Transmission to Multiple Radio Access Units by Employing Nonlinearity of the Optical Link Tayyab Mehmood Salman Ghafoor International Journal of Communication Systems, NULL Impact Factor: 1.278 Quartile: 3 Citations: 9 DOI: https://doi.org/10.1002/dac.3830	2018
All-optical 2R-regeneration and continuous wave to pulsed signal wavelength conversion based on fiber nonlinearity Jawad Mirza Salman Ghafoor Ashiq Hussain Optical and Quantum Electronics, NULL Impact Factor: 1.547 Quartile: 3 Citations: 11 DOI: https://doi.org/10.1007/s11082-018-1633-7	2018
SER estimation method for 56 GBaud PAM-4 transmission system Aadil Raza Kangping Zhong Salman Ghafoor Saeed Iqbal Shahid Habib Chao Lu Muhammad Adeel Muhammad Fasih Uddin Butt Chao Lu Chinese optics letters, NULL Impact Factor: 1.907 Quartile: 3 DOI: https://www.osapublishing.org/col/abstract.cfm?uri=col-16-4-040604	2018
MIMO-enabled integrated MGDM-WDM distributed antenna system architecture based on plastic optical fibers for millimeter-wave communication Aadil Raza Salman Ghafoor Muhammad Fasih Uddin Butt Photonic Network Communications, Volume 35, Pages 265–273 Impact Factor: 1.328 Quartile: 3 Citations: 16 DOI: https://doi.org/10.1007/s11107-017-0741-9	2018
Raman amplification by employing data modulated pump signals for bi-directional communication Muhammad Ahmad Farooq Salman Ghafoor Microwave and Optical Technology Letters, NULL Impact Factor: 0.933 Quartile: 4 DOI: https://doi.org/10.1002/mop.31051	2018
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