ABDUL BASIT
PhD, (Electronic Engineer)
Electro-8538(PEC#)

Department of Electrical and Computer Engineering (DECE),
Faculty of Engineering &Technology (FET),
International Islamic University, Islamabad (IIUI), Pakistan,

Mobile: +92-333-5366766
Office: +92-51-9019414
Email : abdulbasit@iiu.edu.pk

Google
Scholar: https://scholar.google.com/citations?user=AyFtQL0AAAAJ&hl=en
ORCID ID: http://orcid.org/0000-0001-7361-8985
ResearchGate: https://www.researchgate.net/profile/Abdul_Basit27
Publon: https://publons.com/researcher/1266974/abdul-basit/
Web of Science: https://www.webofscience.com/wos/author/rid/M-8486-2013
Web of Science ResearcherID: **M-8486-2013**

Work Experience

(A) University of Electronic Science &Technology China Oct 17 – Nov 19

I worked as a **Post-Doctoral research fellow** in School of information and communication engineering (SICE), UESTC, and CHINA. My research area included cognitive radar, MIMO radar, Phased Array radar, Frequency Diverse Array Radar Signal processing and Joint Radar-Communication designs.

(B) International Islamic University Islamabad (IIUI) July 07 – to Date

Currently I am working as an Associate Professor in DEE, FET, International Islamic University Islamabad (IIUI) Pakistan. I have worked at IIUI in various capacities, details are given below

1. **Associate Professor (Oct 2023- to date)**
   I am working an Associate Professor in the Department of Electrical and Computer Engineering, International Islamic University Islamabad, Pakistan. I teach Graduate, undergraduate courses, supervise MS and PhD students. Moreover, I am an HEC approved PhD supervisor.

2. Assistant Professor (Feb 2016- Oct 2023)

I worked as an Assistant Professor in the Department of Electrical and Computer Engineering, International Islamic University Islamabad, Pakistan. I taught Graduate, Undergraduate courses, supervise MS and PhD students.

3. Lecturer (Oct 2011- Feb 2016)

I worked as a lecturer in the Department of Electronic Engineering, International Islamic University Islamabad, Pakistan. I have taught the following courses at the Undergraduate level:

1. Communication systems
2. Electronic Circuit Design-I
3. Electronic Circuit Design -II
4. Signals & Systems
5. Complex Analysis
6. Basic Electronic Engineering
7. Digital Logic Design
8. Differential Equations
9. Digital Signal Processing
10. Applied Mathematics
11. Calculus and Analytical Geometry
12. Instrumentation and Measurements
13. Complex Variable and Transforms

4. Lab Engineer (July 2007 to Oct 2011)

My job was to instruct labs and manage laboratory equipment and staff. I conducted the following labs:

1. Electronic Circuit Design-I Lab
2. Electronic Circuit Design-II Lab
3. Circuit Analysis-I Lab
4. Digital Logic Design Lab
5. Signal and Systems Lab
6. Digital Signal Processing Lab
7. Basic Electronic Engineering Lab
8. Electrical Machines Lab
9. Antenna and Wave Propagation Lab

5. Teaching Assistant (addition to job as Lab Engineer): August 2007 to February 2008

Assisted Prof Hyder Ali Khan in IIUI for the subject of Basic Electronic Engg.

6. Member

i. -Annual Engineering Open House organizing committee at the Department of Electronic Engineering, Faculty of Engineering & Technology.
ii. -Student counselling committee of DEE
iii. -University Examination committee DEE
iv. -University International conferences protocol committee DEE

7. Graduate Research Committee

As the In-charge of Graduate Studies in the Department of Electrical and Computer Engineering since 2021, I have been responsible for a range of administrative, academic, and advisory duties to ensure the effective operation and quality of our graduate programs. My key responsibilities include:

1. **Conducting Graduate Research Committee (GRC) Meetings**: I organize and lead GRC meetings regularly, ensuring effective discussions on research directions, student progress, and policy updates.

2. **Preparation and Execution of Postgraduate Program Reviews (PGPR)**: I prepare for and conduct PGPR visits, providing detailed insights into our program's strengths and identifying areas for improvement.

3. **Graduate Course Allocation**: I oversee the allocation of graduate courses each semester, matching faculty expertise with course needs to maintain high academic standards.

4. **Graduate Student Counseling**: I offer guidance to graduate students, addressing academic, research, and career-related queries to support their development and success.

5. **Overseeing Thesis and Dissertation Submissions**: I manage the submission process for theses and dissertations, ensuring all submissions meet departmental and university standards.

6. **Reviewing Research Proposals and Progress Reports**: I evaluate research proposals and annual progress reports, providing feedback and ensuring adherence to academic standards.

7. **Coordination of Graduate Student Orientations**: I organize orientations for new graduate students, helping them acclimate to departmental expectations and resources.

8. **Maintaining Records and Compliance**: I ensure that all graduate student records are up to date and in compliance with university policies, supporting accurate reporting and accreditation processes.

9. **Developing and Implementing Program Policies**: I participate in the development and implementation of policies related to graduate studies, ensuring that program guidelines support academic integrity and student success in line with the HEC rules and regulations.

8. Student Activity

As the leading member of Student Sports Activities within the Faculty of Engineering & Technology, my responsibilities focus on creating a vibrant environment that fosters student engagement, teamwork, and overall wellness. These key duties include:

1. **Organizing and Overseeing Student Sports Events**: I coordinate a variety of sports activities, such as tournaments and fitness challenges, to promote student involvement and encourage a balanced approach to academic and extracurricular life.

2. **Managing Sports Resources and Facilities**: I ensure that sports facilities and equipment are well-maintained and accessible, supporting a wide range of student athletic interests.

3. **Mentoring and Advising Student Sports Leaders**: I work with student leaders to enhance their skills in team management and sportsmanship, helping cultivate a supportive and inclusive sports culture.

4. **Coordinating Inter-faculty and External Competitions**: I facilitate participation in external sports events, representing our faculty and fostering a sense of pride and teamwork among students.

9. Final Year Project Supervisor

As a supervisor, I oversee up to four final-year projects (FYPs) annually, guiding students through each phase of their research and development. My responsibilities include:

1. **Providing Technical and Research Guidance**: I support students in developing and refining their project ideas, ensuring they align with current industry standards and academic rigor.

2. **Monitoring Project Progress and Milestones**: I regularly meet with project teams to review their progress, set milestones, and address any challenges, keeping projects on track for timely completion.

3. **Evaluating and Offering Constructive Feedback**: I assess project deliverables and presentations, offering feedback to enhance the quality of students' work and support their learning.

4. **Encouraging Innovation and Problem-Solving**: I motivate students to approach challenges creatively, fostering analytical skills and encouraging solutions that demonstrate technical competence and originality.

10. Event Supervisor

Annual Sports Gala Cricket team selection supervisor (Faculty of Engineering & Technology Engineering) since 2009.

(C) Muhammad Ali Jinnah University, Islamabad (2005-2006)

Student Assistantship
Worked as a student assistant for the courses of Digital logic design, Physics-II and Antenna Theory & Design.

(D) Internship (June-2007 –July 2007)

Pakistan Telecommunication Company Limited (PTCL) Pakistan
(Wireless Communication Department-08 Weeks)

MS/PhD students Supervision/Co-Supervision

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i) MS students Supervision/ Co-Supervision

1. Syed Masood Kakakhel, Application of OFDM in Cognitive Radio (Completed)

2. Asad Mehmood Investigation of Co-Prime Array Beamforming Patterns (Completed)

3. Muhammad Usman Compressed Sensing Based Algorithm for Exact Estimation of Far Field Sources. (Completed Under Co-Supervision)

4. Roveed Ahmed Hardware Enforced Restricted One-way Data Transfer Solution for Different Security Classified Networks (Completed Under Co-Supervision)

ii) PhD Students Supervision/ Co-Supervision

1. **Fahad Munir** "Data Rate Enhancement and Interference Mitigation in design of Cognitive Radcom". (Under Supervision)

2. **Ahmed Saleem**: Efficient Beamspace Design and Waveform Optimization for RadCom (Under Co-supervision)

3. Muhmmad Umair Hafeez: Improved parameter estimation and transmit receive beamforming for cognitive FDA radar (Under Supervision)

4. Muhammad Adeel Jadoon: Physical layer security for 5G and beyond communication: A frequency diverse array beamforming approach (Under Supervision)

EDUCATION

2010-2016	**PhD in Electronic Engineering** Radar Signal Processing International Islamic University, Islamabad, Pakistan. (CGPA 3.91/4.00)
2007-2009	**Masters in Electronic Engineering** Majors in Signal and Image Processing International Islamic University, Islamabad, Pakistan. (CGPA 3.95/4.00)
2003-2007	**B.S Electronic Engineering** Muhammad Ali Jinnah University, Islamabad, Pakistan. (CGPA 3.73/4.00) (Silver medal)

COMPUTER SKILLS

- ✓ Matlab
- ✓ Pspice (Electronic circuit Design)
- ✓ Electronic Work Bench (EWB)
- ✓ MS Office

AFFILIATIONS

- Registered Engineer, Pakistan Engineering Council (PEC)

PUBLICATION METRICS AND SUMMARY

16 H-index	728 Sum of Times Cited
64 Total Publications	55 Web of Science Core Collection Publications
1 Sum of Times Cited by Patents	

Publishing Summary

For manuscripts published from date range September 2019 - September 2024

(4) IEEE Access	(3) International Journal of Microwav...
(3) IET Radar, Sonar & Navigation	(3) IEEE Transactions on Vehicular Te...
(2) IEEE Transactions on Wireless Co...	(2) IEEE Transactions on Aerospace ...
(1) IEEE Antennas and Wireless Prop...	(1) IEEE Transactions on Cognitive C...
(1) Progress In Electromagnetics Res...	(1) Digital Signal Processing
(1) Progress In Electromagnetics Res...	(1) Signal Processing
(1) IEEE Systems Journal	(1) IEEE Geoscience and Remote Se...
(1) Applied Sciences	(1) Radioengineering
(1) Wireless Communications and M...	(1) IEEE Signal Processing Letters
(1) Entropy	

Reviewer Summary

For manuscripts reviewed from date range September 2019 - September 2024

(10) IEEE Transactions on Vehicular ...	(6) IEEE Access
(6) IET Signal Processing	(5) IEEE Wireless Communications L...
(4) Remote Sensing	(4) IEEE Sensors Journal
(4) IET Radar, Sonar & Navigation	(4) IEEE Transactions on Antennas a...
(3) IEEE Transactions on Aerospace ...	(3) IEEE Transactions on Signal Proc...
(2) IEEE Transactions on Biomedical ...	(2) IEEE Sensors Letters
(2) IEEE Geoscience and Remote Se...	(1) IEEE Internet of Things Journal
(1) IEEE Transactions on Green Com...	(1) Cogent Engineering
(1) Waves in Random and Complex ...	(1) Science China Information Scien...

RESEARCH DIRECTION and RESEARCH GROUP IN UNIVERSITY

As the In-charge of the Radar and Communication Systems (RaCS) research group at DECE, FET, International Islamic University Islamabad, my primary responsibilities include:

1. **Leading Research Initiatives**: I oversee and guide research projects within the RaCS group, setting research directions and identifying innovative topics in radar and communication systems.

2. **Coordinating Collaborative Research Efforts**: I establish and maintain partnerships with industry and academic institutions, enabling collaborative projects, knowledge exchange, and resource sharing.

3. **Supervising Graduate Researchers**: I mentor graduate students and junior researchers, providing technical guidance and feedback on their research progress, theses, and publications.

4. **Securing Research Funding and Grants**: I actively pursue funding opportunities, preparing proposals to secure grants and financial support for the group's research activities and projects.

5. **Organizing Seminars and Workshops**: I plan and conduct seminars, workshops, and guest lectures to enhance knowledge sharing and foster a culture of learning within the group.

6. **Publishing and Disseminating Research Findings**: I coordinate the preparation and submission of research publications, ensuring that our findings contribute to the broader academic and professional community.

JOURNAL & CONFERENCE PUBLICATIONS

[1] **A. Basit**, W.-Q. Wang, S. Y. Nusenu, and S. Wali, "FDA Based QSM for mmWave Wireless Communications: Frequency Diverse Transmitter and Reduced Complexity Receiver," IEEE Transactions on Wireless Communications, 2021.

[2] **A. Basit**, W.-Q. Wang, and S. Y. Nusenu, "Adaptive transmit array sidelobe control using FDA-MIMO for tracking in joint radar-communications," Digital Signal Processing, vol. 97, p. 102619, 2020.

[3] **A. Basit**, W.-Q. Wang, S. Wali, and S. Y. Nusenu, "Transmit beamspace design for FDA–MIMO radar with alternating direction method of multipliers," Signal Processing, vol. 180, p. 107832, 2020.

[4] **A. Basit**, S. Y. Nusenu, S. U. Khan, W. Khan, M. A. Khan, and M. U. Farooq, "Adaptive Detection and Correction of Faulty Elements in Frequency Diverse Array," in 2019 16th International Bhurban Conference on Applied Sciences and Technology (IBCAST), 2019, pp. 1010–1016.

[5] **A. Basit** et al., "Adaptive Main Lobe/Sidelobes Controls Selection in FDA based Joint Radar-Communication Design," in 2019 International Conference on Electrical, Communication, and Computer Engineering (ICECCE), 2019, pp. 1–5.

[6] **A. Basit**, W.-Q. Wang, and S. Y. Nusenu, "Adaptive transmit beamspace design for cognitive FDA radar tracking," IET Radar, Sonar & Navigation, 2019.

[7] **A. Basit**, W.-Q. Wang, S. Y. Nusenu, and S. Zhang, "Range-Angle-Dependent Beampattern Synthesis With Null Depth Control for Joint Radar Communication," IEEE Antennas and Wireless Propagation Letters, vol. 18, no. 9, pp. 1741–1745, 2019.

[8] **A. Basit**, W.-Q. Wang, S. Y. Nusenu, and Z. Zheng, "Cognitive FDA-MIMO With Channel Uncertainty Information for Target Tracking," IEEE Transactions on Cognitive Communications and Networking, vol. 5, no. 4, pp. 963–975, 2019.

[9] **A. Basit**, W. Khan, S. Khan, and I. M. Qureshi, "Development of frequency diverse array radar technology: a review," IET Radar, Sonar & Navigation, vol. 12, no. 2, pp. 165–175, 2018.

[10] **A. Basit**, I. M. Qureshi, W. Khan, S. u. Rehman, and M. M. Khan, "Beam Pattern Synthesis for an FDA Radar with Hamming Window-Based Nonuniform Frequency Offset," IEEE Antennas and Wireless Propagation Letters, vol. 16, pp. 2283–2286, 2017.

[11] **A. Basit**, I. M. Qureshi, W. Khan, A. N. Malik, and B. Shoaib, "Beam pattern synthesis for a cognitive frequency diverse array radar to localize multiple targets with same direction but different ranges," in 2016 13th International Bhurban Conference on Applied Sciences and Technology (IBCAST), 2016, pp. 682–688.

[12] **A. Basit**, "Hybrid Cognitive Phased and Frequency Diverse Array Radar." PhD Thesis, INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD, PAKISTAN, 2016.

[13] **A. Basit**, I. M. Qureshi, W. Khan, and A. N. Malik, "Cognitive frequency diverse array radar with symmetric non-uniform frequency offset," Science China Information Sciences, vol. 59, no. 10, p. 102314, 2016.

[14] **A. Basit**, I. M. Qureshi, W. Khan, and A. N. Malik, "Range–Angle-Dependent Beamforming for Cognitive Antenna Array Radar with Frequency Diversity," Cognitive Computation, vol. 8, no. 2, pp. 204–216, 2016.

[15] **A. Basit**, I. M. Qureshi, A. N. Malik, W. Khan, and B. Shoaib, "Beam sharpening of a range-angle-dependent pattern using non-uniform symmetric but integer frequency offset," in 2016 International Conference on Intelligent Systems Engineering (ICISE), 2016, pp. 232–235.

[16] **A. Basit**, I. M. Qureshi, B. Shaoib, W. Khan, and A. N. Malik, "Performance Analysis of a Cognitive Phased Array Radar with Online Tracking Capability," Wireless Personal Communications, pp. 1–18, 2016.

[17] **A. Basit**, I. M. Qureshi, W. Khan, and S. U. Khan, "Cognitive frequency offset calculation for frequency diverse array radar," Applied Sciences and Technology (IBCAST), 2015 12th International Bhurban Conference on. pp. 641–645, 2015.

[18] **A. Basit**, I. M. Qureshi, W. Khan, I. Ulhaq, and S. U. Khan, "Hybridization of cognitive radar and phased array radar having low probability of intercept transmit beamforming," International Journal of Antennas and Propagation, vol. 2014, 2014.

[19] **A. Basit**, I. M. Qureshi, W. Khan, I. Ulhaq, and S. U. Khan, "Research Article Hybridization of Cognitive Radar and Phased Array Radar Having Low Probability of Intercept Transmit Beamforming," 2014.

[20] **A. Basit**, "Evolutionary Computing Based Antenna Array Beamforming with Low Probabality of Intercept Property," World Applied Sciences Journal, vol. 23, no. 11, pp. 1570–1575, 2013.

[21] Umair Hafeez Khan, **Abdul Basit**, Wasim Khan, Muhammad Adeel Khan Jadoon, Nauman Anwar Baig, "Cognitive dual coprime frequency diverse array MIMO radar network for target discrimination and main-lobe interference mitigation,". IET Radar Sonar Navig. 18(9), 1584–1597 (2024).

[22] B. Huang, P. Li, J. Jian, W.-Q. Wang, and **A. Basit**, "FDA-MIMO Radar Target Detection With Limited Test Samples," IEEE Transactions on Aerospace and Electronic Systems, 2024.

[23] J. Jian, W.-Q. Wang, **A. Basit**, and B. Huang, "Physical layer security for frequency diverse array-based dual-hop spatial modulation," IEEE Transactions on Wireless Communications, vol. 22, no. 11, pp. 7565–7579, 2023.

[24] M. F. Munir et al., "Hybrid FSK–FDM Scheme for Data Rate Enhancement in Dual-Function Radar and Communication," Sensors, vol. 23, no. 12, p. 5440, 2023.

[25] Saleem et al., "Alternating direction method of multipliers-based constant modulus waveform design for dual-function radar-communication systems," Entropy, vol. 25, no. 7, p. 1027, 2023.

[26] S. Wali, C. Li, M. Imran, A. Shakoor, and **A. Basit**, "Level-set evolution for medical image segmentation with alternating direction method of multipliers," Signal Processing, vol. 211, p. 109105, 2023.

[27] Alselwi, A. U. Khan, I. M. Qureshi, W. Khan, and **A. Basit**, "Multi-user transmission for the joint radar communication systems based on amplitude phase shift keying modulation and waveform diversity," International Journal of Microwave and Wireless Technologies, vol. 14, no. 8, pp. 1054–1068, 2022.

[28] H. Bang, Y. Yan, **A. Basit**, W.-Q. Wang, and J. Cheng, "Radar cross section characterization of frequency diverse array radar," IEEE Transactions on Aerospace and Electronic Systems, vol. 59, no. 1, pp. 460–471, 2022.

[29] B. Huang, J. Jian, **A. Basit**, R. Gui, and W.-Q. Wang, "Adaptive Distributed Target Detection for FDA-MIMO Radar in Gaussian Clutter Without Training Data," IEEE Transactions on Aerospace and Electronic Systems, vol. 58, no. 4, pp. 2961–2972, 2022.

[30] B. Huang, W.-Q. Wang, **A. Basit**, and R. Gui, "Bayesian Detection in Gaussian Clutter for FDA-MIMO Radar," IEEE Transactions on Vehicular Technology, vol. 71, no. 3, pp. 2655–2667, 2022.

[31] B. Huang, W.-Q. Wang, D. Orlando, **A. Basit**, and J. Liu, "Bayesian detection of distributed targets for FDA-MIMO radar in Gaussian interference," IEEE Signal Processing Letters, vol. 29, pp. 2168–2172, 2022.

[32] M. F. Munir, **A. Basit**, W. Khan, A. Saleem, and A. Al-salehi, "A comprehensive study of past, present, and future of spectrum sharing and information embedding techniques in joint wireless communication and radar systems," Wireless Communications and Mobile Computing, vol. 2022, no. 1, p. 9642849, 2022.

[33] M. F. Munir, **A. Basit**, W. Khan, A. Waseem, A. Saleem, and A. Al-Salehi, "Frequency Quadrature Amplitude Modulation based Scheme for Dual Function Radar and Communication Systems," in 2022 International Conference on Engineering and Emerging Technologies (ICEET), 2022, pp. 1–5.

[34] Alselwi, A. U. Khan, I. M. Qureshi, W. Khan, and **A. Basit**, "Throughput enhancement for the joint radar-communication systems based on cognitive closed-loop design," IEEE Access, vol. 9, pp. 64785–64807, 2021.

[35] K. Hameed et al., "DOA estimation in low SNR environment through coprime antenna arrays: an innovative approach by applying flower pollination algorithm," Applied Sciences, vol. 11, no. 17, p. 7985, 2021.

[36] B. Huang, **A. Basit**, R. Gui, and W.-Q. Wang, "Adaptive moving target detection without training data for FDA-MIMO radar," IEEE Transactions on Vehicular Technology, vol. 71, no. 1, pp. 220–232, 2021.

[37] B. Huang, **A. Basit**, W.-Q. Wang, and S. Zhang, "Adaptive detection with Bayesian framework for FDA-MIMO radar," IEEE Geoscience and Remote Sensing Letters, vol. 19, pp. 1–5, 2021.

[38] Y. A. N. Yisheng, W. Wen-Qin, **A. Basit**, and C. A. I. Jingye, "Airborne FDA-MIMO Radar Modeling and Detection Performance Analysis.," Radioengineering, vol. 30, no. 2, 2021.

[39] S. Y. Nusenu, **A. Basit**, and E. Asare, "FDA Transmit Beamforming Synthesis Using Chebyshev Window Function Technique to Counteract Deceptive Electronic Countermeasures Signals," Progress In Electromagnetics Research, vol. 90, pp. 53–60, 2020.

[40] S. Y. Nusenu, S. Huaizong, Y. Pan, and **A. Basit**, "Directional Modulation With Precise Legitimate Location Using Time-Modulation Retrodirective Frequency Diversity Array for Secure IoT Communications," IEEE Systems Journal, 2020.

[41] S. Y. Nusenu, H. Shao, P. Ye, and **A. Basit**, "Space-Frequency Increment Index Modulation Approach for Fifth Generation and Beyond Wireless Communication Systems," IEEE Transactions on Vehicular Technology, 2020.

[42] S. Yaw Nusenu and **A. Basit**, "Frequency-modulated diverse array transmit beamforming with bat metaheuristic optimisation," IET Radar, Sonar & Navigation, vol. 14, no. 9, pp. 1338–1342, 2020.

[43] R. Al-Salehi, I. M. Qureshi, A. N. Malik, W. Khan, and **A. Basit**, "Dual-function radar–communications: information transmission during FDA radar listening mode," International Journal of Microwave and Wireless Technologies, pp. 1–12, 2019.

[44] S. Y. Nusenu and **A. Basit**, "Energy-Efficient Coding Matrix FMD-RDA Secure Transmission Scheme Based on Quadrature Spatial Modulation for mmWave Systems," Progress In Electromagnetics Research, vol. 80, pp. 133–143, 2019.

[45] S. Y. Nusenu, S. Huaizong, W.-Q. Wang, and **A. Basit**, "Directional Radar-Embedded Communications Based on Hybrid MIMO and Frequency Diverse Arrays," in 2019 IEEE Radar Conference (RadarConf), 2019, pp. 1–5.

[46] S. Y. Nusenu, S. Huaizong, P. Ye, W. Xuehan, and **A. Basit**, "Dual-function radar-communication system design via sidelobe manipulation based on fda butler matrix," IEEE Antennas and Wireless Propagation Letters, vol. 18, no. 3, pp. 452–456, 2019.

[47] S. Wali et al., "Fast and Adaptive Boosting Techniques for Variational Based Image Restoration," IEEE Access, vol. 7, pp. 181491–181504, 2019.

[48] S. Wali, A. Shakoor, **A. Basit**, L. Xie, C. Huang, and C. Li, "An Efficient Method for Euler's Elastica Based Image Deconvolution," IEEE Access, vol. 7, pp. 61226–61239, 2019.

[49] S. Y. Nusenu and **A. Basit**, "Frequency diverse array antennas: from their origin to their application in wireless communication systems," Journal of Computer Networks and Communications, vol. 2018, 2018.

[50] S. Y. Nusenu and **A. Basit**, "Cognitive Transmit Subarray FDA Design for Integrated Radar-Communication Using Flexible Sidelobe Control," in 2018 IEEE 7th International Conference on Adaptive Science & Technology (ICAST), 2018, pp. 1–6.

[51] S. Y. Nusenu, W.-Q. Wang, and **A. Basit**, "Time-modulated FD-MIMO array for integrated radar and communication systems," IEEE Antennas and Wireless Propagation Letters, vol. 17, no. 6, pp. 1015–1019, 2018.

[52] M. Jadoon, Q. Zhang, I. U. Haq, A. Jadoon, **A. Basit**, and S. Butt, "Classification of mammograms for breast cancer detection based on curvelet transform and multi-layer perceptron," Biomedical Research, vol. 28, no. 10, pp. 1–10, 2017.

[53] W. Khan, I. M. Qureshi, **A. Basit**, M. Zubair, and S. U. Khan, "MIMO-frequency diverse array radar with unequal subarrays for improved range-angle dependent beamforming," Wireless Personal Communications, vol. 97, no. 2, pp. 1967–1984, 2017.

[54] S. Saeed, I. M. Qureshi, **A. Basit**, A. Salman, and W. Khan, "Cognitive null steering in frequency diverse array radars," *International Journal of Microwave and Wireless Technologies*, vol. 9, no. 1, p. 25, 2017.

[55] S. U. Khan, I. M. Qureshi, A. Naveed, B. Shoaib, and **A. Basit**, "Research Article Detection of Defective Sensors in Phased Array Using Compressed Sensing and Hybrid Genetic Algorithm," 2016.

[56] S. U. Khan, I. M. Qureshi, A. Naveed, B. Shoaib, and **A. Basit**, "Detection of defective sensors in phased array using compressed sensing and hybrid genetic algorithm," Journal of Sensors, vol. 2016, 2016.

[57] W. Khan, I. M. Qureshi, **A. Basit**, A. N. Malik, and A. Umar, "Performance Analysis of MIMO-Frequency Diverse Array Radar with Variable Logarithmic Offsets," Progress In Electromagnetics Research C, vol. 62, pp. 23–34, 2016.

[58] W. Khan, I. M. Qureshi, **A. Basit**, and B. Shoaib, "Transmit/received beamforming for MIMO log-frequency diverse array radar," in 2016 13th International Bhurban Conference on Applied Sciences and Technology (IBCAST), 2016, pp. 689–693.

[59] B. Shoaib, I. M. Qureshi, W. Khan, S. U. Khan, and **A. Basit**, "Numerical solution of nonlinear Boundary value problems in kernel space," in 2016 13th International Bhurban Conference on Applied Sciences and Technology (IBCAST), 2016, pp. 269–273.

[60] S. U. Khan, I. M. Qureshi, B. Shoaib, and **A. Basit**, "Correction of faulty pattern Using Cuckoo Search algorithm and Symmetrical element failure technique along with distance adjustment between the antenna array," in 2015 12th International Bhurban Conference on Applied Sciences and Technology (IBCAST), 2015, pp. 633–636.

[61] W. Khan, I. M. Qureshi, **A. Basit**, and W. Khan, "Range Bins Based Mimo Frequency Diverse Array Radar With Logarithmic Frequency Offset," Antennas and Wireless Propagation Letters, IEEE, vol. PP, no. 99. p. 1, 2015.

[62] W. Khan, I. M. Qureshi, **A. Basit**, and M. Zubair, "Hybrid phased MIMO radar with unequal subarrays," IEEE Antennas and Wireless Propagation Letters, vol. 14, pp. 1702–1705, 2015.

[63] W. Khan, I. M. Qureshi, **A. Basit**, and M. Zubair, "A Double Pulse MIMO Frequency Diverse Array Radar for Improved Range-Angle Localization of Target," Wireless Personal Communications, vol. 82, no. 4, pp. 2199–2213, 2015.

[64] S. U. Khan, I. M. Qureshi, F. Zaman, B. Shoaib, A. Naveed, and **A. Basit**, "Correction of faulty sensors in phased array radars using symmetrical sensor failure technique and cultural algorithm with differential evolution," The Scientific World Journal, vol. 2014, 2014.

[65] S. U. Khan, I. M. Qureshi, F. Zaman, **A. Basit**, and W. Khan, "Application of firefly algorithm to fault finding in linear arrays antenna," World Applied Sciences Journal, vol. 26, no. 2, pp. 232–238, 2013.

[66] W. Khan, I. M. Qureshi, **A. Basit**, and M. Zubair, "Transmit/Receive Beamforming and Interferences Cancellation Using Phased Mimo Radar with Full Waveform Diversity," World Applied Sciences Journal, vol. 27, no. 3, pp. 392–399, 2013.

[67] S. Y. Nusenu, W. Q. Wang, **A. Basit**, J. I. Lee, D. J. Yun, and H. J. Kim, "Beam Scanning Realized by Coupled Modes in a Single-Patch Antenna..... H. Tian, K. Dhwaj, LJ Jiang, and T. Itoh 1077 Low-Profile Dual-Band Filtering Antenna Using Common Planar Cavity..... K. Dhwaj, H. Tian, and T. Itoh 1081 Design of Compact Dua," 2024.