
CURRICULUM VITAE



Dr. Farida Memon

Professor (BPS-21) at Mehran University of Engineering and Technology, Jamshoro, Sindh Pakistan.

PERSONAL INFORMATION

- Date of Birth : September 19, 1969
- Nationality : Pakistani
- National ID Card Number : 41301-1716942-8
- Passport Number : BB3959423
- PEC Reg No : ELECTRO/03269
- Mailing Address : Professor,
Department of Electronic Engineering
Mehran University of Engineering and Technology,
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ACADEMIC QUALIFICATION

- **Doctor of Philosophy, Electronic Engineering (FPGA Implementation of 3D Shape Recovery Algorithms)**
Mehran University of Engineering & Technology, Jamshoro, Pakistan 2016 Ist Class
- **Master of Engineering (Telecommunication & Control)**
Mehran University of Engineering & Technology, Jamshoro, Pakistan 2008 Ist Class
- **Bachelor of Engineering (Electronic Engineering)**
Mehran University of Engineering & Technology, Jamshoro, Pakistan 1993 90.3%
(3.82 G.P.A)
- **Higher Secondary Certificate, Intermediate (Pre-Engineering)**
S.I. Govt. Degree College Hala New, B.I.S.E, Hyderabad, Pakistan, 1986 70.09 %,
stood third amongst the girls in the board Examination.
- **Secondary School Certificate, Matriculation (Science Group)**
Govt. Girls High School Hala New, B.I.S.E, Hyderabad, Pakistan 1984 79%

RESEARCH INTRESTS

- FPGAs, Image Processing, Digital Systems Design, Embedded systems, Machine Learning, Deep Learning.

THESIS WRITTEN

- **Doctor of Philosophy**

FPGA Implementation of 3D Shape Recovery Algorithms.

- **Master of Engineering**

Design of a Robust Autopilot for a Non-linear Container Ship.

- **Bachelor of Engineering**

Personal Computer Based Railway Monitoring and Signalling System.

WORK EXPERIENCE

- **Professor, BPS-21** 17th December 2021 – up to date
Mehran University of Engineering and Technology Jamshoro, Sindh, Paksitan

- **Associate Professor, BPS-20** 23rd December 2017 – 16th December 2021
Mehran University of Engineering and Technology Jamshoro, Sindh, Paksitan

- **Assistant Professor, BPS-19** 14th December 2000 – 22nd December 2017
Mehran University of Engineering and Technology Jamshoro, Sindh, Paksitan

- **Lecturer, BPS-17** 29th Feburary 1996 – 13th December 2000
Mehran University of Engineering and Technology Jamshoro, Sindh, Paksitan

- **Demonstrator, BPS-16** 07th May 1995 – February 28th 1996
Mehran University of Engineering and Technology Jamshoro, Sindh, Paksitan

- **Demonstrator, BPS-16 (Contract basis)** 2nd May 1994 – 06th May 1995

MEMBERSHIPS

1. Pakistan Engineering Council (Life Member).
Registration date: 13/04/1993
Membership No: Electro/3269
2. Mehran University Alumni Association (MUAA) (Life Member).

SERVICE ACTIVITY

Teaching various subjects related to the field, conduct of practicals, delivering lectures and providing guidance and supervision to the Undergraduate and Postgraduate students of the Department of Electronic Engineering in various subjects of Electronic Engineering discipline.

EXTENDED RESPONSIBILITIES/ADMINISTRATIVE DUTIES

- Incharge of Advanced Computer Lab , Incharge of the seminar library in the department, Convener of Departmental student advisory committee, Class Adviser.
- Member of Board of Faculty of Electrical, Electronic & Computer Engineering .
- Member of the Board of Studies for the Department of Electronic Engineering .
- Organizing and attending workshops and seminars held in department and university.
- Attending the meetings to revise and design new curriculum.
- Attended 3day meeting of NCRC, held on 28-30 May 2009 at HEC Regional center Lahore and **designed a new Curriculum for B.Tech (Electronic Technology), working as Convener in NCRC-Sub-Committee.**
- Attended 3 day “Academic and Subject Committee meeting of NTS-2009” Held on 13 Nov to 15 Nov at Islamabad, working as Conveniner.
- Member of ASRB (2020).
- Member of Faculty of Science, Technology & Humanities (FOST&H) [2024, for the period of three years].
- Convener of Assesment team to conduct the assement of ME/PhD programs (2024).
- Vice-president (female) Alumni association (2024).

COURSES TAUGHT

- **PhD Program**
 - Real Time Computing and Embedded Systems
 - Advanced FPGA based System Design
 - High Performance Computring
- **Master’s Program**
 - Advanced Digital Design

- Advanced FPGA based System Design
- IC Design and Manufacturing Techniques
- MEMS Design & Micromachining
- Semiconductor Materials & Technology
- Automation and Control Engineering
- Probability and Random processes
- Advanced Digital System Design

➤ Undergraduate Program

- Digital Electronics
- Electronic Engineering-I
- Electronic Engineering-II
- Basic Electronics
- Amplifiers and Oscillators
- Control Engineering
- Automation and Control
- Probability and Stochastic Processes
- Analysis of Stochastic Processes
- FPGA-Based System Design

Research

- Supervision of undergraduate projects
- Taking ME and PhD Classes
- Supervision of ME/PhD projects
- Conduct ME and PhD Viva voce exam as internal examiner at MUET.
- Conduct of ME/PhD seminars and Viva voce exam at QUEST Nawab shah

M.E THESES SUPERVISED

- A. Hussain, “An Optimum Solution for Electric Power Theft”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, 2011.
- M. H. Shah, “Control of Nonholonomic two wheeled mobile Robot”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, 2013.
- K. Shaikh, “DWDM based Fiber Optic System Design and Simulation by using Hybrid EDFA-SOA Amplifiers”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, 2013.
- Beenish, “Modelling and Control of a Snake robot using Simmechanics”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, 2017.
- S. Maryam, “FPGA based Implementation & Validation of Histogram Equalization using MATLAB and HDL Coder”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, 2018.
- Monica, “Modeling and Field Oriented Control of Permanent Magnet Synchronous

Motor using FPGA”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, 2021.

- Mahroona Jawaid, “A Comparative Study of PID Control for VTOL based UAV System”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, 2021.
- Aisha Baloch, “Vehicle Detection and Classification System using Zed Board Environment”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, July 2021.
- Marvi Jamali, “Design of a Fluid Level Controller for a Coupled Tank System”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, April 2022.
- Maria Panhwar, “Fault Detection of Actuators of Quadcopter UAV Using Convolutional Neural Network”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, November 2023.
- Faryal Baloch, “Flood Disaster Estimation Using Images and Machine Learning”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, November 2023.
- Sada Hussain, “Crop Prediction Using Machine Learning”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, May 2024.
- Shahzad Mehmood, “Comparative Analysis of Feature Extraction Methods for Cotton Leaf Diseases Detection”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, May 2024.
- Erum Khokhar, “UAV-Imagery-Based Crop and Weed Classification using Deep Learning”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, May 2024.
- Atta-ur-Rehman, “Development of the ANFIS-Based PID controller for wind system”, M.E. Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, Feb 2025.

PHD THESIS SUPERVISED

- Beenish Ansari, “Design and Optimization of Tilted Hyperbolic Metamaterial for Field Enhancement”, PhD Dissertation, Mehran University of Engineering and Technology, Jamshoro, Pakistan, June 2025.

PUBLICATIONS (Journal)

- 1 Jahanzaib Rajput, **Farida Memon**, and Mukhtiar Ali Unar “Differential Derive & Global Positioning Blockset (a new Blockset for use with Simulink)”, *Mehran University Research Journal of Engineering and Technology*, pp. 327-338, Vol:24, No.4, October 24,2005, **(ISSN: 0254-7821)**
- 2 Aamir Hussain, **Farida Memon** and Bhawani Shankar Chowdhry, “An Optimum solution for Electric Power Theft”, *Mehran University Research Journal of Engineering and Technology*, pp. 353-364, Vol. 32, No. 3, 5th July , 2013, **(ISSN: 0254-7821)**
- 3 Aamir Hussain, T. B. Ibrahim, Bhawani Shankar Chowdhry, P. Nallagownden, and **Farida Memon**, “Finite Element Analysis of Linear Permanent Magnet Generator for Wave Energy Conversion”, *Mehran University Research Journal of Engineering & Technology*, pp. 113-122, Vol. 34, Issue S1, 5th August, 2015, **(ISSN: 0254-7821)**
- 4 **Farida Memon**, Mukhtiar Ali Unar, and Sheeraz Memon, “Image Quality Assessment for Performance Evaluation of Focus Measure Operators”, *Mehran University Research Journal of Engineering & Technology*, pp. 379-386, Vol. 34, No. 4, 7th October, 2015, **(ISSN: 0254-7821)**
- 5 Aamir Hussain, Taib b Ibrahim, Perumal Nallagoowden, **Farida Memon**, “Optimization of Linear Permanent Magnet (PM) Generator with Triangular-Shaped Magnet for Wave Energy Conversion using Finite Element Method”, *Journal of Electrical Systems*, Vol. 12, No. 3, pp. 583-590, 20th September, 2016 (ISSN 1112-5209, Indexed by SCOPUS and ISI Thomson Reuters)
- 6 Rafia Naz Memon, Shah Zaman Nizamani, **Farida Memon**, Irfana Memon, Pardeep Kumar, “A Problem Analysis Method Based on Soft System Methodology in Requirements Engineering Process ”, *Quaid-E-Awam University Research Journal of Engineering, Science & Technology*, Vol. 15, No. 1, pp. 82-91, Jan-June, 2016. ISSN: 1605-8607.
- 7 **Farida Memon**, Faria Jameel, Muhammad Arif, Fayaz Ahmed Memon, “Model Based FPGA Design of Histogram Equalization”, *Sindh University Research Journal*, Vol. 48, No.2, pp. 435-440, July, 2016. ISSN (Print) 1813-1743.
- 8 **Farida Memon**, Aamir Hussain, Shahnawaz Talpur, Fayaz Ahmed Memon, and Rafia Naz Memon, “Design and Co-Simulation of Depth Estimation Using Simulink HDL Coder and Modelsim”, *Mehran University Research Journal of Engineering & Technology*, Vol. 35, No. 3, pp. 473-482, July, 2016 , **(ISSN: 0254-7821, HEC Pakistan Recognized Journal).**
- 9 Abdul Sattar Saand, Krishan L. Khatri, **Farida Memon**, Varun Jeoti, Rafia Naz Memon, “ Source and Relay Precoding Design for Dual-hop Multiuser Network”,

- 10 Ehsan Ali, Abdul Sattar Saand, **Farida Memon**, Ghulam Mustafa Bhuto and Nasreen Nizamani, “Stability Consideration of the Voltage Switched Charge-pump Phase Locked Loop using Linear Approach”, *Research Journal of Applied Sciences, Engineering and Technology*, Vol. 13, No. 3, pp. 257-264, August, 2016, 2016. Print ISSN: 2040-7459.
- 11 Rafia Naz Memon, Fiza Siyal, **Farida Memon**, Shah Zaman Nizamani, “ L-Soft: A Lightweight Method for Teaching Problem Structuring and Analysis in Requirements Engineering”, *International Journal of Computer Science and Information Security (IJCSIS)*, Vol. 14, No. 8, pp. 734-753, August 2016. ISSN 1947-5500.
- 12 **Farida Memon**, A.Hussain, Ehsan Ali and Imdad Ali Ismaili, “Electromagnetic Characteristics Prediction and Efficiency Analysis of Linear Permanent Magnet Generator for Marine Wave Energy Conversion using Finite Element Method”, *Research Journal of Applied Sciences, Engineering and Technology*, Vol. 13, No. 4, pp. 315-324, August, 2016, Print ISSN: 2040-7459.
- 13 Fatima Qureshi, Irfana Memon, Fayyaz Ahmed Memon, Safia Amir Dahri, **Farida Memon**, “A study on image detection techniques”, *International Journal of Engineering Research and Development*, Vol. 12, No. 8, pp. 34-39, August 2016.
- 14 **Farida Memon**, Rafia Naz Memon, Abdul Sattar Saand, Mohsin Ali Memon, Fayaz Ahmed Memon, “Depth Estimation using FPGAs”, *International Journal of Computer Science and Information Security (IJCSIS)*, Vol. 14, No. 8, pp. 1004-1013, August , 2016.
- 15 Rafia Naz Memon, Fiza Siyal, **Farida Memon**, Shah Zaman Nizamani, Abdul Sattar Saand, “ Empirical Validation of L-Soft Method for Teaching Problem Structuring and Analysis in RE”, *International Journal of Computer Science and Information Security (IJCSIS)*, Vol. 14, No. 9, pp. 1017-1042, September, 2016.
- 16 Qaisar Javaid, **Farida Memon**, Shahnawaz Talpur, Muhammad Arif, and Muhammad Daud Awan, “Mining Frequent Item Sets in Asynchronous Transactional Data Streams over Time Sensitive Sliding Windows Model”, *Mehran University Research Journal of Engineering & Technology*, Vol. 35, No. 4, pp. 625-644, October, 2016, **(ISSN: 0254-7821, HEC Pakistan Recognized Journal)**.
- 17 Abdul Sattar Saand, **Farida Memon**, M. M. Rind, V. Jeoti, I. Baig, N. K. Tanwani, “Receive and Transmit Beamforming in Dual-Hop Relay Network Using Fukunaga Koontz Transform Based SINR and SLNR Maximization”, *Sindh University Research Journal*, Vol. 48 (4D), pp. 61-66 , December, 2016. ISSN (Print) 1813-1743

- 18 **Farida Memon**, Abdul Sattar Saand, Rafia Naz Memon, Fayaz Ahmed Memon, Shakila Memon, “Implementation of 3D Shapes by Using an Optimal and Efficient Shape Recovery Algorithm”, *Sindh University Research Journal*, Vol. 48 (4D), pp. 67-74 , December, 2016.
- 19 Muhammad Arif, Muhammad Asim, **Farida Memon**, “Use of Nonlinear Frequency Modulated Signals for the Enhancement of Subharmonic Response from Contrast Microbubbles”, *Mehran University Research Journal of Engineering & Technology*, Volume 36, No. 1, pp. 183-192, January, 2017, **(ISSN: 0254-7821, HEC Pakistan Recognized Journal)**.
- 20 Faria Jameel, **Farida Memon**, Pervez Shaikh, and Nafees Ahmed Memon, “Implementing a Business Intelligence Environment in Local Market of Pakistan”, *Mehran University Research Journal of Engineering & Technology*, Volume 36, No. 2, pp. 333-342, April, 2017, **(ISSN: 0254-7821, HEC Pakistan Recognized Journal)**.
- 21 Mohsin Ali Memon, Sania Bhatti, Naeem Ahmed Mahoto, **Farida Memon**, “LIFEREC: A Framework for Recommending Users from Past Life Experiences”, *Mehran University Research Journal of Engineering & Technology*, Volume 36, No. 3, pp. 661-672, July, 2017.
- 22 Irfana Memon, Safia Amir Dahri, **Farida Memon**, Fatima Qureshi, Fayyaz Ahm Memon, “Comparative Analysis of Image Detection Techniques”, *Sindh University Research Journal* , Vol. 49(2), pp. 461-466, July 2017. ISSN (Print) 1813-1743
- 23 Aamir Hussain, **Farida Memon**, T. Ibrahim, N. Perumal, “Analysis of linear generator for marine energy”, *University of Sindh Journal of Information and Communication Technology (USJICT)* , Vol. 4, Issue 4, pp. 262-272, Y-Catogory ,December 2020. ISSN (Print): 2521-5582
- 24 Monika Bhagnani, **Farida Memon**, Arbab Nighat Kalhor, “Modeling and Field Oriented Control of Permanent Magnet Synchronous Motor Using FPGA”, *International Journal of Electrical Engineering & Emerging Technology*, Vol. 04, No. SI 01, pp 42-48, 18 Feb 2021. ISSN (Print) 2618-0014.
- 25 Mahroona Jawaid, Arbab Nighat Kalhor, **Farida Memon**, “A Comparative Study of PID Control for VTOL based UAV System”, *Engineering Science and Technology International Research Journal*, pp. 1-5, Vol.5, No.1, 17 March, 2021. ISSN: (Print) 2521-5027.
- 26 Aisha Baloch, Tayab D Memon, **Farida Memon**, Bharat Lal , Ved Viyas and Tony Jan, “ Hardware Synthesize and Performance Analysis of Intelligent Transportation Using Canny Edge Detection Algorithm”, *I. J. Engineering and Manufacturing*, Vol. 4, pp 22-32, August, 2021. ISSN: 2305-3631 (Print).
- 27 Marvi Jamali, Arbab Nighat, **Farida Memon** and Fida Hussain Jamali, “Design of a Fluid Level Controller for a Coupled Tank System”, *International Journal of Scientific & Engineering Research*, Volume 12, Issue 9, September-2021, pp 260-268, ISSN 2229-5518.

28. Bhagwan Das, Ayesha Mushtaque, **Farida Memon**, Rajesh Kumar Dhanaraj, Manikandan Thirumalaisamy, Muhammad Zakir Shaikh, Arbab Nighat, and M. S. M. Gismalla, "Real-Time Design and Implementation of Soft Error Mitigation Using Embedded System", Journal of Circuits, systems, and computers, May 17, 2022, pp 1-19, **Impact Factor: 1.67**, (X-catogry) ISSN (print): 0218-1266 | ISSN (online): 1793-6454 , <https://doi.org/10.1142/S0218126622502802>.
29. Abdullah Memon, **Farida Memon**, Fayaz Ahmed Memon, Kehkashan Asma Memon, Aamir Hussain, "Autonomous Farming Robot", Journal of Applied Engineering & Technology, Vol. 6, No.2, pp. 20-33, Y-Catogory, December 31, 2022. ISSN : 2523-6032 ISSN-L : 2523-2924.
30. Sada Hussain, **Farida Memon**, Arbab Nighat, Fayaz Ahmed Memon, Majid Hussain, "Weather based Localized Crop Prediction using Machine Learning", QUEST Research Journal, Vol 20, No. 02, PP. 97–106, Y-Catogory Jul–Dec, 2022.
31. Faryal Baloch, Arbab Nighat Kalhoro, and **Farida Memon**, "Flood Disaster Estimation Using Images and Machine Learning", Journal of Computing & Biomedical Informatics, Vol. 5, No.1, Y-Catogory , June 15, 2023, ISSN: 2710 – 1606. <https://doi.org/10.56979/501/2023>.
32. Dua Amna, Fayaz Ahmed Memon , **Farida Memon** , Imtiaz Ali Halepoto , and Ali Raza Bhangwar, "Database System for Medical Record Keeping and Retrieval", Journal of Applied Engineering & Technology, Vol. 7, No.1, pp. 93-104, Y-Catogory, June 30, 2023. ISSN : 2523-6032 ISSN-L : 2523-2924. <https://doi.org/10.55447/jaet.07.01.101>
33. Abdushkour H, Soomro TA, Ali A, Ali Jandan F, Jelinek H, **Memon F.** et al. , "Enhancing fine retinal vessel segmentation: Morphological reconstruction and double thresholds filtering strategy", PLOS ONE, 18(7) pp. 1-27, **Impact Factor: 3.75**, (W-Catogry) eISSN 1932-6203, July 19, 2023. <https://doi.org/10.1371/journal.pone.0288792>
34. Shahzad Mehmood, **Farida Memon**, Arbab Nighat , Fayaz Ahmed Memon ,ErumSaba, "Comparative Analysis of Feature Extraction Methods for Cotton Leaf Diseases Detection", VFAST Transactions on Software Engineering, Vol.11, No. 3, pp. 1-10, Y-Catogory , July-September 2023. ISSN(e): 2309-3978, ISSN(p): 2411-6246.
35. Maria Panhwar, Arbab Nighat, **Farida Memon**, Shadab Kalhoro, "Fault Detection in Rotors of Quadcopter UAV Using Convolutional Neural Network", Journal of Computing & Biomedical Informatics, Vol. 5, No. 2, pp.164-179, Y-Catogory , September 2023.
36. Beenish Ansari, Mukhtiar Ali Unar, **Farida Memon**, Shahnawaz Shah, and Fayaz Ahmed Memon, "Modeling and Control of a Snake Robot using SimMechanics", Sukkur IBA Journal of Emerging Technologies, Vol. 6, No. 2|, pp. Y-Catogory ,1-10, July–December 2023.
37. Faisal Ahmed Dahri, Fahim Aziz Umrani, Kehkashan Asma Memon, **Farida Memon**, Abdul Waheed Umrani, "Performance Analysis of Modulation Techniques for Indoor Free Space Optics", Journal of Applied Engineering &

- Technology, Vol. 8, No.1, pp. 73-80, Y-Catogory, June 30, 2024. ISSN : 2523-6032 ISSN-L : 2523-2924. <https://doi.org/10.55447/jaet.07.01.101>
38. Beenish Ansari, Arbab Nighat Kalhor, Shahnawaz Shah, **Farida Memon**, “Optical axis-driven field enhancement in a hyperbolic medium”, Optics Letter, Vol. 49, No. 15/1, pp. 4254-4257, Impact Factor: 3.6, W-Catogory, August 2024.
 39. Kehkashan A. Memon, Noorain Mukhtiar, **Farida Memon**, Zartasha Balouch , Saima Shaikh, Aqsa Yosif Shaikh, “Mathematical modeling & performance analysis of FSO-based XG-PON using 2D multi-diagonal code”, Optoelectronics and Advanced Materials – Rapid Communications, Vol. 18, No. 7-8, pp. 334 – 345, Impact Factor: 0.5, Y-Catogory July-August 2024.
 40. Beenish Ansari, Arbab Nighat Kalhor, Shahnawaz Shah, **Farida Memon** et al., “Ability and limitations of effective medium theory in terms of filling fraction and number of layers for hyperbolic metamaterials”. Applied Optics, 64(10), 2497-503, April-2025, Impact Factor 1.7 (W-category journal).
 41. Kamran Kazi, Arbab Nighat Kalhor, **Farida Memon**, Azam Rafique Memon and Muddesar Iqbal, “Beyond Handcrafted Features: A Deep Learning Framework for Optical Flow and SLAM”, Journal of Imaging, MDPI, 155(11) pp.1-17, 15 May 2025, Impact Factor 2.7 (W-category journal).
 42. Kamran Kazi, Arbab Nighat Kalhor, Farida Memon, Tarique Rafique and Azam Rafique Memon , “Robust Outdoor Trajectory Mapping Using CNN Features and Loop Closure Optimization”, Mehran University Research Journal of Engineering & Technology (MURJET) , 44(3) pp. 174-186, July 2025, (X-category journal).

PUBLICATIONS (Conference)

1. Jahanzaib Rajput ; **Farida Memon** ; Mukhtiar Ali Unar, “Simulation of a Differentially-Driven Vehicle Robot in Simulink”, *Proceedings of 9th International Multitopic Conference, IEEE INMIC* , pp.1 – 6, 2005.
2. Jahanzaib Rajput ; **Farida Memon** ; Mukhtiar Ali Unar , “Differential Derive & Global Positioning Blockset (a new Blockset for use with Simulink)”, *Proceedings of the National Conference on Information Tech: & applications NCITA-2005*, pp. 46-55, 21-22 April, 2005, Quetta, Pakistan.
3. Muhammad Asif Araien ; **Farida Memon**, “Navobot Frmula2: A Navigatory and Handling Approach”, *Proceedings of the IEEE symposium 2006*, MUET, Jamshoro.
4. Aamir Hussain Memon, Taib bin Ibrahim, Perumal Nallagownden, **Farida Memon** “Optimization of Linear Permanent Magnet (PM) Generator with Triangular-Shaped Magnet for Wave Energy Conversion using Finite Element Method”, in: *10th International Power Engineering and Optimization Conference*, Shah Alam, Malaysia, 26-27 March, 2016.

5. **Farida Memon**, Abdul Sattar Saand, Rafia Memon, Shakela Memon and Fayyz Memon, "Implementation of 3D shapes by using an optimal and efficient shape recovery Algorithm", in: *ICETSS-2016- International Conference Engineering, Technology and Social Sciences*, Kuala Lumpur, Malaysia, Aug, 2016.
6. Abdul Sattar Saand, **Farida Memon**, M. Malook Rind, Varun Jeoti and Imran Baig, "Receive and Transmit Beamforming in Dual-Hop Relay Network Using Fukunaga Koontz Transform Based SINR and SLNR Maximization", in: *ICETSS-2016- International Conference Engineering, Technology and Social Sciences*, Kuala Lumpur, Malaysia, Aug, 2016.
7. Taib Ibrahim, Aamir Hussain Memon, **Farida Memon**, Perumal Nallagowden, Naili Akmal Mohd Zamri, "Modelling and Validation of Linear Synchronous Permanent Magnet Generator with Triangular Magnet-Array Configuration for Wave Energy Conversion", in *ICIAS 2018- International Conference on Intelligent & Advanced System*, Kuala Lumpur, Malaysia, 13-14 August 2018.
8. Beenish Ansari, **Farida Memon**, Mukhtiar Ali Unar, Shakila Memon, "Modeling and Control of Snake robot by using Simmechanics" in 3rd global conference on wireless and optical communication (GCWOC'18), Malaga, Spain, 1-3 October 2018.

BOOKS WRITTEN

1. "A practical book on Digital Electronics", published in Jan, 2008.
2. "FPGA Based System Design (A Practical Approach)", published in Sept. 2012.

PROFESSIONAL TRAININGS/WORKSHOPS AND CERTIFICATES

- Awarded certificate of merit and second prize on the presentation of paper titled as "Design of Microprocessor-based Railway Signalling and Control System" in all Pakistan Electrical Engineering Students Seminar, held on 19th December at Dawood College of Engineering and Technology, Karachi, 1991.
- Awarded certificate of merit and gold medal on the presentation of paper titled as "Design of Microprocessor-based Railway Signalling and Control System to avoid Railway Disasters" in the National Multi-topic-Student Seminar, held on 28th to 29th December at MUET, Jamshoro, 1991.
- Attended In-House training programme conducted from 2nd July to 7th July, on "Sequential Circuit Design" held at Department of Electronic Engineering, M.U.E.T, Jamshoro. 1994.
- Attended six weeks computer short course in "Turbo C, EDP & DOS", held at M.U.E.T Jamshoro, July 06, 1994.
- Attended six weeks computer short course in "PC-Hardware & Trouble Shooting", held at M.U.E.T, Jamshoro, 25th February, 1995.
- Attended six weeks specialized professional course in "Control Technology", held at PSTC(Karachi), April 10, 2000.

- Awarded Meritorious Performance Award for organizing the Convocation-99 of the university held on March 21, at MUET, 2000.
- Attended three-Day workshop on “Fiber Optic System Specialist” from 10 April 2003 to 12 April 2003, organized by Fiber Tech Communications (pvt) ltd, at Electronic Dept: M.U.ET. Jamshoro.
- Attended one Day workshop on “Neural Networks”, on 5th September, 2005, held at MUET, Jamshoro.
- Attended one Day workshop on “Introduction to Digital Resources and their Effective Usage”, on 18th October 2005, held at MUET, Jamshoro.
- Awarded Certificate of Appreciation for participating in the “21st All Pakistan Electrical & Electronics Engineers Students Seminar-2006” , held on 21st January 2006 at MUET, Jamshoro.
- Awarded Certificate of Appreciation for participating in the “21st Multi-Topic International Symposium-2006” , held on 14th-15th April, 2006 at Hotel Pearl Continental, Karachi, Pakistan.
- Attended one Day workshop on “Instrumentation Interface Design for Automation in Research and Industry and Seminar on Leadership and Time Management ”, held on 8th August 2007, at MUET, Jamshoro.
- Awarded Certificate of Appreciation as a Organizing Committee, in the International Multi-Topic Conference (IMTIC’08) held on April 11-12, 2008 at MUET, Jamshoro.
- Attended 3-Day Training Course on “Programmable Logic Controllers”, from 29th to 31st December 2008, held at IICT, MUET, Jamshoro.
- Attended 1-Day International workshop on “ Legal Issues in IT for Professionals”, on 6th April, 2009, held at MUET, Jamshoro.
- Attended 2-Day Training course on “Advanced Digital Design using Mentor Graphics , FPGA Design Flow” , A software from Mentor Graphics (Asia), Singapore, from 3rd to 4th April, 2010.
- Attended **First joint ICTP-TWAS Regional Microelectronics course on VHDL for Hardware Synthesis and FPGA Design in South and Southeast Asia**, held in Dhaka, Bangladesh, from 31 January to 18 February 2011.
- Attended one day short course on “Teaching FPGA-Based Digital Design Course”, held on Feb:26, 2012, at PAF-KIET Karachi Pakistan.
- Awarded Certificate of Appreciation as a Member, Organizing Committee, in 2nd International Multi-Topic Conference held on 28-30 March, 2012 at MUET, Jamshoro.
- Organized and conducted as a resource person a **Two day Workshop on “VHDL for Hardware Synthesis & FPGA Design”**, held on 16-17 March, 2012 at MUET Jamshoro, Pakistan.
- Presented a **Tutorial on “FPGA-Based Digital & Embedded Design using VHDL”** at 2nd International Multi-topic Conference held on 28-30 March, 2012, at MUET Jamshoro Pakistan.
- Attended **“Asian Regional School on FPGA Design for Scientific Instrumentations”** , jointly organized by ICTP Italy and MUET, Jamshoro, held in MUET, Jamshoro, from 7-18 December 2015.
- Attended a **“Workshop for Technology Programs Evaluators”**, organized by NTC in collaboration with QAA-HEC, held at HEC-Regional Center-Karachi, from 18-19 April, 2018.
- Conducted **“OBE Awareness Seminar for 18ES”**, held on 24th April 2019, at Department of Electronic Engineering.

- Attended a seminar on **“Prospect scholarship opportunities for research and Collaboration in Europe”**, conducted by Dr. Yar Muhammad Mughal- University of Tartu, Estonia, held on 24th July 2019 at Electronic Engineering Department, MUET.
- Attended a **“Seminar on CQI process and Corrective Actions”**, conducted by Dr. Dur Muhammad Soomro, Senior Lecturer, UTHM, Malaysia, held on 8- 9th August 2019 at ORIC and Electronic Engineering Department, MUET.
- Conducted FYP seminar on **“Academic Writing and Plarigsim Policy Awareness(Turnitin) software”**, held on 22nd August 2019, at Department of Electronic Engineering.
- Attended **“OBE Guest lecture”**, conducted by Dr. Junid Mughal Professor, COMSAT, Islamabad, held on 17th Feb 2020 at AV Hall, IIT Building MUET.
- Attended a seminar on **“QOBE software and CQI generation in it”**, conducted by Engr. Bharat Lal, Lecturer Dept of Electronics, held on 27th October 2020 at Department of Electronic Engineering.
- Conducted 0.5 CPD online Webinar on **“Academic Writing and Plarigsim Policy Awareness(Turnitin) software”**, held on 25th February 2021, organized by Department of Electronic Engineering, MUET.
- Conducted Motivational Talk arranged for the faculty and staff members of Department of Electronic Engineering on **“PhD Scholarships and Opportunities”**, held on 29th March 2021.
- Conducted a Seminar on **”Machine Learning and Deep Learning Basics”**, held on 17th Nov 2021, organized by Department of Electronic Engineering, MUET.
- Conducted as a resourse person a Two Day Hands-on-National Workshop on **“FPGA Design Flow Using Vivado”**, held on 25th and 26th September 2024, organized by Department of Electronic Engineering, MUET.

COMMITTEE WORK

Name of Committee	Assignments
1. OBE Based Program Committee	Member
2. CRC Committee	Member
3. Departmental Management Review Committee (DMRC)	Member
4. Industrial Advisory Board	Member
5. DILC Committee	Member
6. Subject Equivalence Committee (B.E and M.E)	Member
7. M.E and PhD ES programe	Programe Coordinator
8. Test for Admission to PhD Committee	Member
9. Scanning Committee	Member
10. Library Committee of the university	Member

Significant Community and Professional Service or Academic Distinction

- Vice-president (female) Alumni association.
- Member of Board of Studies of Electronic Engineering Department.
- Member of Board of FEECE.
- Reviewer in National Scientific Journals.

- Reviewer in 1st International Conference On Emerging Technologies in Electronics, Computing and Communications, ICETECC held on December 7-9, 2022
- Reviewer in 2nd International Conference On Emerging Technologies in Electronics, Computing and Communications, ICETECC held on April 23-25 2025
- Session Chair in 1st International Conference On Emerging Technologies in Electronics, Computing and Communications, ICETECC held on December 7-9, 2022
- Session Chair in 2nd International Conference On Emerging Technologies in Electronics, Computing and Communications, ICETECC held on April 23-25 2025
- Finance and Sponsorship Chair in 1st International Conference On Emerging Technologies in Electronics, Computing and Communications, ICETECC held on December 7-9, 2022.
- Finance and Sponsorship Chair in 2nd International Conference On Emerging Technologies in Electronics, Computing and Communications, ICETECC held on April 23-25 2025

COMPUTER LITERACY

- Microsoft Office (Word, Excel and Power Point)
- Turbo-C
- MATLAB
- Python
- VHDL
- HDL Coder
- Xilinx ISE Desin Suite
- Xilinx System Generator
- Vivado software
- LTSpice
- Electric VLSI software

LANGUAGES

- English, Urdu and Sindhi: Good in speaking, reading and writting

REFERENCES

- **Prof. Dr. M.A. Unar**

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