

Curriculum Vitae Dr. Irfan Ahmed Halepoto

PERSONAL INFORMATION						
Name: Irfan Ahmed Halepoto Qualification: PhD (Electronic Engineering) Date of Birth: March 28, 1982 Marital Status: Married (02) Languages: English, Urdu, Sindhi Nationality: Pakistani Contact: 0092-3368287935			Email Address: iah@energy.aau.dk irfan.halepoto@gmail.com Website: https://www.muett.edu.pk/departments/electronics-engineering/faculty-members			
						
Field of Specialization: Power Electronics, Artificial Intelligence, Machine Learning. Research Interests: Batteries, Electric Vehicles, Energy Trading and Management						
Professional Designation: Associate Professor, Department of Electronic Engineering, Mehran University of Engineering & Technology, Jamshoro, Pakistan.			Current Status: Postdoctoral Researcher, AAU Energy, Aalborg University Denmark Project: "Machine Learning-based Digital Twins for Battery State Estimation in Electric Vehicles." Postal Address: Address: Saltumvej 7R, 92290, Aalborg Øst Contact: +45-91966285			
Research Contributions	Research Publications					
	Journal Articles	42	Conference Papers	23	Book Chapters	3
	Google Scholar:					
	Citation Score	693	h-index	13	i10-index	21
	https://scholar.google.com/citations?user=MdzlcokAAAAJ&hl=en&oi=ao					
	Web of Science Profile		https://www.webofscience.com/wos/author/record/M-4240-2014			
	Scopus Author ID		https://www.scopus.com/authid/detail.uri?authorId=56426541700			
ORCID Profile		https://orcid.org/0000-0003-1623-981X				
Semantic Scholar		https://www.semanticscholar.org/author/I.-A.-Halepoto/3044191				
Academic Contribution	21 Years of teaching experience at the Undergraduate level (9 years of teaching experience under OBE and PBL) 17 Years of teaching experience at the Postgraduate level. 9 Years of post-doctoral teaching experience.					
Research Supervision	Ph.D. Scholars		Postgraduate Students		Undergraduate Student Groups	
	02		29		25	
International Research Exposure	- Guest PhD student at the Department of Electronic Systems, Aalborg University Denmark from August 2014 to January 2015. - Invited guest researcher at AAU Energy, Aalborg University Denmark from 20th March to 31st March 2023.					
Technical Skills	Programming Languages: C/C++, MATLAB, Python Software Packages/Simulation Tools: Multi SIM, P/LT SPICE, Power factory, HOMER, PSCAD, GAMS.					

ACADEMIC QUALIFICATIONS:

Period	Institution	Degree	Field of Study	Research thesis
2012-2016	Mehran UET Jamshoro, Pakistan	PhD	Electronic Engineering	Design of Intelligent Demand Side Management System using Supervisory Control Strategies in Distributed Smart Grid
2004-2007	Mehran UET Jamshoro, Pakistan	M.E	Communication Systems and Networks	Performance issues of Linearization Techniques for RF Power Amplifier
2000-2004	Mehran UET Jamshoro, Pakistan	B.E	Electronic Engineering	A Telemedicine Application: Design & implementation of a Tele-Cardiologic system

PROFESSIONAL WORK EXPERIENCE:

Designation	Serving Period		Organization Served	Job Description
Associate Professor	27-10-2016	To-date	Dept.: of Electronic Engineering, Mehran UET Jamshoro, Pakistan	Teaching and Research
Assistant Professor	10-10-2009	26-10-2016	Dept.: of Electronic Engineering, Mehran UET Jamshoro, Pakistan	Teaching and Research
Lecturer	14-09-2004	09-10-2009	Dept.: of Electronic Engineering, Mehran UET Jamshoro, Pakistan	Teaching, Research and Laboratory In charge

CONTRIBUTIONS AS A RESEARCHER:

Publications in International Journals:

1. Muhammad Arsalan Jalees Abro, Abdul Sattar Larik, Mohammad Alsulami; **Irfan Ahmed Halepoto**; Sultan Alyami; Samar M. Alqahtan; AI-Based Predictive Modeling and NSGA-II Optimization for Eco-Driving Route Planning in Electric Vehicles, *IEEE Access* (Early Access), DOI: 10.1109/ACCESS.2025.3613479, September 2025.
2. Muhammad Arsalan Jalees Abro, Abdul Sattar Larik, Ali Alqazzaz, **Irfan Ahmed Halepoto**, Mana Saleh Al Reshan, Asadullah Shaikh; A Black Box Approach to EV Energy Consumption: Integrating Key Parameters for Drive Range Optimization; *IEEE Access*, DOI: 10.1109/ACCESS.2025.3591371, Volume: 13, Page(s): 134269 – 134282, July 2025.
3. Masood Nazir Khoso, **Irfan Ahmed Halepoto**, Agha Mushtaque Ahmed. Impact Analysis of Solar Heater Box with Linear Actuator on Germination of Chickpea Seeds. *Journal of Applied Research in Plant Sciences*, <https://doi.org/10.38211/joarps.2024.05.01.210>, Vol. 5, No. 1, pp. 01-11, January 2024.
4. Agha Mushtaque Ahmed, Imran Khatri, **Irfan Ahmed Halepoto**, Masood Nazir Khoso. Enhancing Efficiency of Solar Heater Box with Linear Actuator for Maximizing Solarization. *Preceding's of the Pakistan Academy Science of Sciences, Physical and Computational Sciences*, DOI: 10.53560/PPASA (60-4)811, Vol. 60, No. 4, pp. 811-819, December 2023.
5. Maryam Saeed, **Irfan Ahmed Halepoto**, Sania Khaskheli, Mehak Bushra. Optimization and efficiency analysis of deep learning based brain tumor detection. *Mehran University Research Journal of Engineering and Technology*, e-ISSN: 2413-7219, <https://doi.org/10.22581/muet1982.2302.19>, Vol. 42, No. 2, pp. 188-196, April 2023.
6. Shehroze Mughal, Muhammad Arsalan Jalees Abro, **Irfan Ahmed Halepoto**, Mehran Muhammad Memon. Automobile Suspension Prediction Model Based on Neural Network and Grey Neural Network, *Journal of Applied Engineering & Technology*, e-ISSN: 2523-2924, DOI: <https://doi.org/10.55447/jaet.06.02.90>, Vol. 6, No. 2, pp. 53-62, December 2022.
7. Munwar Ali Bhand, **Irfan Ahmed Halepoto**, Muhammad Arsalan Jalees Abro, Perm Singh Rajput, Ghulam Mustafa Shoro. Optimizing Economic Load Dispatch Problem using Genetic Algorithm: A Case Study of Thermal Power Station Jamshoro. *International Journal of Grid and Distributed generation*. e-ISSN: 2005-4262, DOI: <http://dx.doi.org/10.33832/ijgdc.2021.14.2.02>, July 2021.
8. Ghulam Mustafa Shoro, **Irfan Ahmed Halepoto**, Muhammad Arsalan Jalees Abro, Fahad Iqbal, Munwar Ali Bhand. Design and Implementation of Low-Cost Automatic Transfer Switch with Interlocking Facility. *International Journal of future generation communication and networking*, e-ISSN: 2233-7857, DOI: 10.33832/ijfgcn.2021.14.2.03, Vol. 14, No. 2, pp. 31-40, June 2021.
9. Ghulam Mustafa Shoro, Prem Singh Rajput, Fahad Iqbal, Muhammad Arsalan Jalees Abro, Munwar Ali Bhand, **Irfan Ahmed Halepoto**. Design of UAV Autonomous Charging Pad for Surveillance. *Revista Geintec-Gestao Inovacao E Tecnologias*, e-ISSN: 2237-0722, DOI: <http://dx.doi.org/10.47059/revistageintec.v11i3.2030>, Vol. 11, No. 3, pp. 1552-1561, June 2021.
10. **Irfan Ahmed Halepoto**, Ghulam Mustafa Shoro, Muhammad Arsalan Jalees Abro, Muhammad Ali Nizamani, Munwar Ali Bhand. Design, Development and Control of Gesture based Unmanned Vehicle. *International Journal of Contemporary Architecture "The New ARCH"*, e-ISSN: 2198-7688, Vol. 8, No. 2, pp. 542-551, May 2021.
11. Mukhtiar Hussain Khawaja, **Irfan Ahmed Halepoto**, Shakeela Memon. Design and tuning of digital power line carrier to improve network line parameters at high voltage transmission lines. *3C Technolgia. Innovation*

- glossaries applied to SMEs*. DOI: <http://dx.doi.org/10.17993/3ctecno.2019.specialissue3>. Pp. 167-183, November 2019.
12. Abdullah Qazi, **Irfan Ahmed Halepoto**, Kamran Kazi. Optimal Balancing and Control of a Dynamic Load Demand in a Grid Connected Hybrid System using Feed-in Tariff Approach. *3C Technolgia. Innovation glossaries applied to SMEs*. DOI: <http://dx.doi.org/10.17993/3ctecno.2019.specialissue2>. Vol.8, No. 29, pp. 350–365, May 2019.
 13. Muhammad Arsalan Jalees Abro, Saifullah Samo, Dur Muhammad Pathan, **Irfan Ahmed Halepoto**. Novel Design and Modeling of Shutter Valves for Camless Engines. *3C Technolgia. Innovation glossaries applied to SMEs*. DOI: <http://dx.doi.org/10.17993/3ctecno.2019.specialissue2>. Vol.8, No. 29, pp. 518–533, May 2019.
 14. Sania Khaskheli, **Irfan Ahmed Halepoto**, Ayesha Khalid. Residential Community Micro Grid Load Scheduling and Management System Using Cooperative Game Theory. *3C Technolgia. Innovation glossaries applied to SMEs*. Doi: <http://dx.doi.org/10.17993/3ctecno.2019.specialissue2>. pp. 534–551, May 2019.
 15. Muhammad Arsalan Jalees Abro, **Irfan Ahmed Halepoto**. “Virtually Reactive Boxing based Action Reflector Suits for Real Time Sensation”, *Indian Journal of Science and Technology*, e-ISSN: 0974-5645, Vol. 11 (46), DOI: 10.17485/ijst/2018/v11i46/139719, December 2018.
 16. Muhammad Farrukh, **Irfan Ahmed Halepoto**, Bhawani Shankar Chowdhry, Hammadullah Kazi, and Bharat Lal. “Design and Implementation of PLC based Automatic Liquid Distillation System”, *Indian Journal of Science and Technology*, e-ISSN: 0974-5645, Vol. 10 (29), DOI: 10.17485/ijst/2017/v10i29/117368, August 2017.
 17. Saddam Hussain, Sonia Bibi, Farzana Rauf Abro, **Irfan Ahmed Halepoto**. “Methodology to Solve Severe Load Curtailment at Pakistan’s Wind Corridor and Cost Effectively Utilizing Maximum Wind Energy”, *Indian Journal of Science and Technology*, e-ISSN: 0974-5645, Vol. 10 (5), DOI: 10.17485/ijst/2017/v10i5/111271, February 2017.
 18. Mansoor Ahmed Soomro, Anwar Ali Sahito, **Irfan Ahmed Halepoto**, Kamran Kazi. “Single Tuned Harmonic Shunt Passive Filter Design for Suppressing Dominant Odd Order Harmonics in order to Improve Energy Efficiency”, *Indian Journal of Science and Technology*, e-ISSN: 0974-5645, Vol. 9 (47), DOI: 10.17485/ijst/2016/v9i47/108649, December 2016.
 19. **Irfan Ahmed Halepoto**, Anwar Ali Sahito, Mansoor Soomro, Sania Khaskheli, Bhawani Shankar Chowdhry. “Design and Modeling of Substation Time Critical Information Dissemination Model using Publisher subscriber Communication Service Mapping”, *Indian Journal of Science and Technology*, e-ISSN: 0974-5645, Vol. 9 (47), DOI:10.17485/ijst/2016/v9i47/108651, pp. 1-6, December 2016.
 20. Asadullah Rahoo, Abdullah Qazi, **Irfan Ahmed Halepoto**, Pirya Iohana, Ameet Kumar and Bushra Shaikh. “Design and Development of Hexapod using Nitinol Actuator Wire”, *Indian Journal of Science and Technology*, e-ISSN: 0974-5645, Vol 9 (47), DOI: 10.17485/ijst/2016/v9i47/108652, December 2016.
 21. Anwar Ali Sahito, Muhammad Azeem Arain, **Irfan Ahmed Halepoto**, Mansoor Ahmed Soomro, Muhammad Juman Jumani. “Analyzing the Impacts of Wind Generation on Distribution System Performance”, *Indian Journal of Science and Technology*, e-ISSN: 0974-5645, Vol 9(47), DOI: 10.17485/ijst/2016/v9i47/108653, December 2016.
 22. **Irfan Ahmed Halepoto**, Sania Khaskheli. “Modeling of an Integrated Energy Efficient Conveyor System Model using Belt Loading Dynamics”, *Indian Journal of Science and Technology*, e-ISSN: 0974-5645, Vol 9 (47), DOI: 10.17485/ijst/2016/v9i47/108658, December 2016.
 23. **Irfan Ahmed Halepoto**, Muhammad Zakir Shaikh, Bhawani Shankar Chowdhry, Muhammad Aslam Uqaili. “Design and Implementation of Intelligent Energy Efficient Conveyor System Model Based on Variable Speed Drive Control and Physical Modeling”, *International Journal of Control and Automation*, DOI: <http://dx.doi.org/10.14257/ijca.2016.9.6.36>, Vol.9, No.6, pp. 379-388, June 2016.
 24. **Irfan Ahmed Halepoto**, Farzana Rauf Abro, Ali Raza Chachar, Adeena. “Power Quality Assessment of Compact Fluorescent Lamps”, *Sindh University Research Journal (Science Series)*, e-ISSN: 2791-0547, Vol. 48, No.2, pp. 407-412, June 2016.
 25. **Irfan Ahmed Halepoto**, Farzana Rauf Abro, Ghulam Mustafa Shoro, Asif Ali Laghari. “Interpretation of Electric Charges Behaviour and Validation of Relativistic Charge Model in Special Relativity and Electromagnetism”, *Sindh University Research Journal (Science Series)*, e-ISSN: 2791-0547, Vol. 47, No.4, pp. 669-676, December 2015.
 26. Anwar Ali Sahito, **Irfan Ahmed Halepoto**, Muhammad Aslam Uqaili, Zubair Ahmed Memon, Abdul Sattar Larik, Mukhtiar Ahmed Mahar, “Analyzing the Impacts of Distributed Generation Integration on Distribution

- Network: A Corridor Towards Smart Grid Implementation in Pakistan”, *Wireless Personal Communications*, Springer, DOI: <https://doi.org/10.1007/s11277-015-2754-y>, Vol. 85, No. 2, pp. 545-563, November 2015.
27. **Irfan Ahmed Halepoto**, Farzana Rauf Abro, Mohammad Aslam Uqaili, Bhawani Shankar Chowdhry. “Design of Strategic Smart Grid Transformational Roadmap and Implementational Framework - SWOT Analysis of Pakistan Case” *Sindh University Research Journal (Science Series)*, e-ISSN: 2791-0547, Vol. 47, No.3 pp. 455-462, September 2015.
 28. Tayab Din Memon, Muhammad Aamir, **Irfan Ahmed Halepoto**, Chander Kumar Malhi. “Analysis of Interpolation Techniques for Optimal design of Short World Length Algorithms”, *Mehran university research journal of engineering and technology*, e-ISSN: 2413-7219, Vol. 34, No. 1, pp. 53-62, August 2015.
 29. **Irfan Ahmed Halepoto**, Anwar Ali Sahito, Ghulam Mustafa Shoro. “Design of Integrated Analytical Process Framework for Smart City Transformation based on Strengths-Weaknesses-Opportunities-Threats Analysis”, *Sindh University Research Journal (Science Series)*, e-ISSN: 2791-0547 Vol. 47, No. 2, pp. 221-230, June 2015.
 30. Mansoor Ahmed Soomro, **Irfan Ahmed Halepoto**, Anwar Ali Sahito. “Design of Six Pulse Bridge Multiplication Converter Model for Current Harmonic Elimination of Three Phase AC-DC Converter”, *Mehran University Research Journal of Engineering and Technology*, e-ISSN: 2413-7219, Vol. 33, No. 4, pp. 476-484, October 2014.
 31. Wanod Kumar, **Irfan Ahmed Halepoto**, Imtiaz Hussain. “Performance Analysis of TDMA Protocol in a Femtocell Network”, *Mehran university research journal of engineering and technology*, e-ISSN: 2413-7219, Vol. 33, No. 3, pp. 330-334, July 2014.
 32. Anwar Ali Sahito, **Irfan Ahmed Halepoto**, Shah Murad Tunio. “Application of Infrared Thermography in Power Distribution System”, *Mehran University Research Journal of Engineering and Technology*, e-ISSN: 2413-7219, vol. 33, no. 3, pp. 352-358, July 2014.
 33. **Irfan Ahmed Halepoto**, Imtiaz Hussain, Wanod Kumar, Bhawani Shankar Chowdhry. “Performance Analysis of Conventional and Fuzzy Logic Controlled Automatic Voltage Regulator Systems in a Noisy Environment”, *New Horizon” Journal of the institutions of Electrical & Electronics engineers Pakistan*, Vol. 81-82, No. 1, pp. 33-39, June 2014.
 34. **Irfan Ahmed Halepoto**, Mohammad Aslam Uqaili, Bhawani Shankar Chowdhry. “Least Square Regression Based Integrated Multi-Parametric Demand Modeling for Short Term Load Forecasting”, *Mehran university research journal of engineering and technology*, e-ISSN: 2413-7219, Vol. 33, No. 2, pp.215-226, April 2014.
 35. Tufail Ahmed Waseer, **Irfan Ahmed Halepoto**, Muhammad Ali Joyo. “Quantifying the Q-Factor and Minimizing BER in 32-Channel DWDM System Design Using EDFA and RAMAN Amplifiers”, *Mehran university research journal of engineering and technology*, e-ISSN: 2413-7219, Vol. 33, No. 1, pp. 1-8, January 2014.
 36. Shabana Channa, Tayab Din Memon, **Irfan Ahmed Halepoto**. “System Level Analysis and Performance Evaluation of Soft Switch Network in PTCL South Region”, *Mehran university research journal of engineering and technology*, e-ISSN: 2413-7219, Vol. 32, No. 4, pp. 647-656, October 2013.
 37. Tayab Din Memon, **Irfan Ahmed Halepoto**, Ahmed Al-Otobi. “Realizing Ternary Logic in FPGAs for SWL DSP Systems”, *Mehran University Research Journal of Engineering and Technology*, Vol. 32, No. 3, pp. 401-408, July 2013.
 38. Wanod Kumar, Pardeep Kumar, **Irfan Ahmed Halepoto**. “Performance Analysis of an Energy Efficient Femtocell Network Using Queuing Theory” *Mehran University Research Journal of Engineering and Technology*, e-ISSN: 2413-7219, Vol. 32, No. 3, pp. 535-542, July 2013.
 39. Imtiaz Hussain, **Irfan Ahmed Halepoto**, Wanod Kumar, Kamran Kazi. “Anti-Slip Traction Control of Railway Vehicle based on Estimated Wheel-Rail Contact Condition”, *Sindh University Research Journal (Science Series)*, e-ISSN: 2791-0547 Vol. 45, No. 2, pp. 373-378, June 2013.
 40. **Irfan Ahmed Halepoto**, Wanod Kumar, Tayab Din Memon, Imdad Ali Ismaili. “Quantifying the effect of Look up Table size and coefficients Complexity for Non-Linearity compensation in Power Amplifiers”, *Sindh University Research Journal (Science Series)*, e-ISSN: 2791-0547, Vol. 45, No. 2, pp. 447-452, June 2013.
 41. Tarique Rafique Memon, **Irfan Ahmed Halepoto**, Tayab Din Memon. “Embedded DAQ System Design for Temperature and Humidity Measurement”, *Mehran University Research Journal of Engineering and Technology*, e-ISSN: 2413-7219, Vol. 32, No. 2, pp. 253-260, April 2013.
 42. **Irfan Ahmed Halepoto**, Bhawani Shankar Chowdhry, Farzana Rauf Abro. “Implementation of DSL in Pakistan-Growth potential and BW impact-A technical report”, *Mehran University Research Journal of Engineering and Technology*, e-ISSN: 2413-7219, Vol. 24, No. 3, pp. 221-232, July 2005.

Contributions in International Conference Proceedings:

43. **Irfan Ahmed Halepoto**, Ghulam Mustafa Shoro, Muhammad Arsalan Jalees Abro, Muhammad Ali Nizamani, Munwar Ali Bhand. Design, Development and Control of Gesture based Unmanned Vehicle. In Proceedings of 4th International Multi-Topic Conference on Engineering and Science (IMCES'21), Faculty of Information Technology, Universitas YARSI, Jakarta, Indonesia, <https://imces.tech>, 29-30th June 2021.
44. Munwar Ali Bhand, **Irfan Ahmed Halepoto**, Muhammad Arsalan Jalees Abro, Perm Singh Rajput, Ghulam Mustafa Shoro. Optimizing Economic Load Dispatch Problem using Genetic Algorithm: A Case Study of Thermal Power Station Jamshoro. In Proceedings of 4th International Multi-Topic Conference on Engineering and Science (IMCES'21), Faculty of Information Technology, Universitas YARSI, Jakarta, Indonesia, 29-30th June 2021.
45. Ghulam Mustafa Shoro, **Irfan Ahmed Halepoto**, Muhammad Arsalan Jalees Abro, Fahad Iqbal, Munwar Ali Bhand. Design and Implementation of Low-Cost Automatic Transfer Switch with Interlocking Facility. In Proceedings of 4th International Multi-Topic Conference on Engineering and Science (IMCES'21), Faculty of Information Technology, Universitas YARSI, Jakarta, Indonesia, <https://imces.tech>, 29-30th June 2021.
46. Ghulam Mustafa Shoro, Prem Singh Rajput, Fahad Iqbal, Muhammad Arsalan Jalees Abro, **Irfan Ahmed Halepoto**, Munwar Ali Bhand. Design of UAV Autonomous Charging Pad for Surveillance. In Proceedings of 4th International Multi-Topic Conference on Engineering and Science (IMCES'21), Faculty of Information Technology, Universitas YARSI, Jakarta, Indonesia, <https://imces.tech>, 29-30th June 2021.
47. Mukhtiar Hussain Khowaja, **Irfan Ahmed Halepoto**, Shakila Memon. Design and tuning of digital power line carrier to improve network line parameters at high voltage transmission lines. In Proceedings of 5th International Conference on Green Computing and Engineering Technologies (IGCET'19), Casablanca, Morocco, <https://icgct.org>, 17- 9th September 2019.
48. Abdullah Qazi, **Irfan Ahmed Halepoto**, Kamran Kazi. Optimal Balancing and Control of a Dynamic Load Demand in a Grid Connected Hybrid System using Feed-in Tariff Approach. In Proceedings of 2nd International Multi-Topic Conference on Engineering and Science (IMCES'19), Holiday Inn Mauritius Mon Tresor, Plaine Magnien, Mauritius, <https://imces.tech>, 5-7th May 2019.
49. Muhammad Arsalan Jalees Abro, Saifullah Samo, Dur Muhammad Pathan, **Irfan Ahmed Halepoto**. Novel Design and Modeling of Shutter Valves for Camless Engines. Novel Design and Modeling of Shutter Valves for Camless Engines. In Proceedings of 2nd International Multi-Topic Conference on Engineering and Science (IMCES'19), Holiday Inn Mauritius Mon Tresor, Plaine Magnien, Mauritius, <https://imces.tech>, 5-7th May 2019.
50. Sania Khaskheli, **Irfan Ahmed Halepoto**, Ayesha Khalid. Residential Community Micro Grid Load Scheduling and Management System Using Cooperative Game Theory. In Proceedings of 2nd International Multi-Topic Conference on Engineering and Science (IMCES'19), Holiday Inn Mauritius Mon Tresor, Plaine Magnien, Mauritius, <https://imces.tech>, 5-7th May 2019.
51. Muhammad Arsalan Jalees Abro, **Irfan Ahmed Halepoto**. "Virtually Reactive Boxing Based Action Reflector Suits for Real Time Sensation. In Proceedings of 4th International Conference on Recent Trends in Computer Science and Electronics (RTCSE'19), University of Hawaii Honolulu, Hawaii, USA, <https://rtcse.org>, 3-6th January 2019.
52. Muhammad Farrukh, **Irfan Ahmed Halepoto**, Bhawani Shankar Chowdhry, Hameedullah Kazi, Bharat Lal. "Design and Implementation of PLC based Automatic Liquid Distillation System", In Proceeding of 3rd International Conference on Green Computing and Engineering Technologies (ICGCET'17), The Killaloe Hotel, Kincora Harbour, Killaloe, Ireland, <https://icgct.org>, 8-10th August 2017.
53. Saddam Hussain, Sonia Bibi, Farzana Rauf Abro, Irfan Ahmed Halepoto. "Methodology to Solve Severe Load Curtailment at Pakistan's Wind Corridor and Cost Effectively Utilizing Maximum Wind Energy", In Proceeding of 2nd International Conference on Recent Trends in Computer Science and Electronics (RTCSE'17), Kuala Lumpur, Malaysia, <https://rtcse.org>, 2-3rd January 2017.
54. Mansoor Ahmed Soomro, Anwar Ali Sahito, **Irfan Ahmed Halepoto**, Kamran Kazi. "Single Tuned Harmonic Shunt Passive Filter Design for Suppressing Dominant Odd Order Harmonics in order to Improve Energy Efficiency", In Proceeding of 2nd International Conference on Recent Trends in Computer Science and Electronics (RTCSE'17), Kuala Lumpur, Malaysia, <https://rtcse.org>, 2-3rd January 2017.
55. **Irfan Ahmed Halepoto**, Anwar Ali Sahito, Mansoor Soomro, Sania Khaskheli, Bhawani Shankar Chowdhry. "Design and Modeling of Substation Time Critical Information Dissemination Model using Publisher subscriber Communication Service Mapping", In Proceeding of 2nd International Conference on Recent Trends in Computer Science and Electronics (RTCSE'17), Kuala Lumpur, Malaysia, <https://rtcse.org>, 2-3rd January 2017.

56. Asadullah Rahoo, Abdullah Qazi, **Irfan Ahmed Halepoto**, Pirya Iohana, Ameet Kumar and Bushra Shaikh. "Design and Development of Hexapod using Nitinol Actuator Wire", In Proceeding of *2nd International Conference on Recent Trends in Computer Science and Electronics (RTCSE'17)*, Kuala Lumpur, Malaysia, <https://rtcse.org>, 2-3rd January 2017.
57. Anwar Ali Sahito, Muhammad Azeem Arain, **Irfan Ahmed Halepoto**, Mansoor Ahmed Soomro, Muhammad Juman Jumani. "Analyzing the Impacts of Wind Generation on Distribution System Performance", In Proceeding of *2nd International Conference on Recent Trends in Computer Science and Electronics (RTCSE'17)*, Kuala Lumpur, Malaysia, <https://rtcse.org>, 2-3rd January 2017,
58. **Irfan Ahmed Halepoto**, Sania Khaskheli. "Modeling of an Integrated Energy Efficient Conveyor System Model using Belt Loading Dynamics", In Proceeding of *2nd International Conference on Recent Trends in Computer Science and Electronics (RTCSE'17)*, Kuala Lumpur, Malaysia, <https://rtcse.org>, 2-3rd January 2017.
59. **Irfan Ahmed Halepoto**, Anwar Ali Sahito, Bhawani Shankar Chowdhry, Muhammad Aslam Uqaili, Tahir Riaz. "Multi-criteria Assessment of Smart City Transformation based on SWOT Analysis", In Proceeding of *IEEE 5th National Symposium on Information Technology: Towards New Smart World (NSITNSW'15)*, <https://ieeexplore.ieee.org>, DOI: , Riyadh, Saudi Arabia, 17-19th February 2015.
60. Tayab Din Memon, Marvi Deshi, **Irfan Ahmed Halepoto**, Imtiaz Hussain Kalwar, Bhawani Shankar Chowdhry. "Optimization of Sigma-delta Modulation Based on Short World Length DSP Systems in FPGAs", In Proceeding of *4th International Multi-Topic Conference (IMTIC'15)*, Mehran UET Jamshoro, Pakistan, <https://imtict.muet.edu.pk>, 11-13th February 2015.
61. Chander Kumar, Tayab Din Memon, **Irfan Ahmed Halepoto**, Bhawani Shankar Chowdhry. "Analysis of Interpolation Techniques for Optimal design of Short World Length Algorithms", In Proceeding of *4th International Multi-Topic Conference (IMTIC'15)*, Mehran UET Jamshoro, Pakistan, <https://imtict.muet.edu.pk>, 11-13th February 2015.
62. **Irfan Ahmed Halepoto**, Muhammad Aslam Uqaili and Bhawani Shankar Chowdhry., "Implementation of Smart Grid for Sustainable Development-SWOT Analysis of Pakistan Case." In In Proceeding of *3rd International Conference on Energy, Environment and Sustainable Development (EESD'14)*, Mehran UET Jamshoro, Pakistan, <https://eesd.muet.edu.pk>, 22-24th October 2014.
63. Muhammad Aslam Uqaili, Anwar Ali Sahito, **Irfan Ahmed Halepoto**, Zubair Ahmed Memon, Sada Bakhsh Dars. "Impact of Distributed Generation on Network Short Circuit Level", In Proceeding of *IEEE 4th International Conference on Wireless Communications, Vehicular Technology, Information Theory and Aerospace & Electronics Systems (VITAE)*, <https://ieeexplore.ieee.org>, DOI: , Aalborg, Denmark, 11- 14th May 2014.
64. **Irfan Ahmed Halepoto**, Bhawani Shankar Chowdhry, Muhammad Aslam Uqaili. "SCADA Based Intelligent Management and Monitoring of Power Distribution", In Proceeding of *27th IEEE Multi-Topic International Symposium Conference*, 14-15th March 2012.
65. **Irfan Ahmed Halepoto**, Bhawani Shankar Chowdhry, Muhammad Aslam Uqaili. "Remote Monitoring & Intelligent Load Management System for Industrial Processing Plants through D-SCADA Networks", In Proceeding of *26th IEEE Multi-Topic International Symposium Conference 2011*, 16-17th March 2011.

CONTRIBUTIONS IN BOOK CHAPTERS:

1. Faheem Yar Khuhawar, Tayyaba Shaikh, Abdul Latif Memon, **Irfan Ahmed Halepoto**, Fahim Umrani, Rizwan Ali Shah, Hyder Bux Mangrio, Omar Bani Fayyad "Smart Detection: Reinforcement Learning for Network Intrusion Defense" in Open Access book "Mastering Intrusion Detection for Cybersecurity" DOI: 10.5772/intechopen.1008896, ISBN 978-1-83634-422-3, IntechOpen publisher, April 2025.
2. **Irfan Ahmed Halepoto**, Mehran Muhammad Memon, Muhammad Arsalan Jalees Abro, Fahim Aziz Umrani, "Distributed energy storage systems for EV Charging Stations, in book chapter "Distributed Energy Storage Systems for Digital Power Systems", <https://doi.org/10.1016/B978-0-443-22013-5.00008-3>, Elsevier publication, pages 263-292, January 2025.
3. Mehran Muhammad Memon, **Irfan Ahmed Halepoto**, Muhammad Arsalan Jalees Abro, Faheem Yar Khuhawar, "Distributed Energy Storage Systems for Distributed Energy Recourses integration, in book chapter "Distributed Energy Storage Systems for Digital Power Systems <https://doi.org/10.1016/B978-0-443-22013-5.00015-0>, Elsevier publication, pages 319-358, January 2025.

CONTRIBUTIONS TO AS ACEDMICIAN /TEACHER:**Courses taught at PhD Level:**

Power System Distribution Network	Research Methodology
Mathematical Modeling and Simulation	SCADA based System Design
Instrumentation and Systems	Real Time Computing and Embedded System

Courses taught at Postgraduate Level:

Power System Stability	Power Electronics and Drives
Sensors and Actuators	Electronic Instrumentation
IC Design and Manufacturing	Advanced Embedded System Design
Advanced Integrated Circuit design	Modern Trends in Electronic Systems Design

Courses taught at Undergraduate Level:

Power Electronics	Artificial Intelligence
Computer Programming and Languages	Mechatronics System Design and Applications
Embedded System Design	Electronic Circuit Design

DETAILS OF AWARDS/MEDALS RECEIVED:

Award/ Medal/Distinction	Institute/Authority / Country	Date of Award/ Medal
Academic Excellence Award	Alumni Association of Mehran University of Engineering and Technology, Jamshoro, Pakistan.	24 th December, 2019
Best PhD Student- Project Idea	Ideal Excellence Award, Pakistan	21stSept, 2013
Membership and Global Activities Contribution Award	IEEE Karachi Section, Pakistan	3 rd January, 2012

PROFESSIONAL MEMBERSHIPS:

Name of Bodies/ Councils/Organizations	Membership No.	Membership Status
Pakistan Engineering Council (PEC)	ELECTRO/7184	Lifetime Membership
IEEE (USA)	90512564	2008-till to date
IEEE, Karachi Section	Member IEEE Communication Society	January 2016- till to date
	Member IEEE Power and Energy Society	January 2016 - till to date
	Member IEEE Robotics and Automation Society	September 2019 - till to date

CONTRIBUTION AT ACADEMIC FORUMS AND COMMITEES:**Participation in Academic Forums at other Universities:**

S. No	Academic Role	Name of Institute
1	Member, National Curriculum Review Committee	Pakistan Engineering Council
2	Observing Member, Accreditation Committee	Pakistan Engineering Council
3	Expert Member, Selection Board	Department of Electronic Engineering, Dawood University of Engineering & Technology, Karachi, Pakistan
4	Expert Member, Selection Board	Department of Electronic Engineering, Quaid-E-Awam University of Engineering, Science & Technology Nawabshah, Pakistan
5	Member, Board of Studies	Department of Electronic Engineering, University of Sindh Jamshoro, Pakistan
6	Member, Board of Studies	Department of Electronic Engineering, Dawood University of Engineering & Technology, Karachi, Pakistan

7	Member, Board of Studies	Department of Telecommunication Engineering, Dawood University of Engineering & Technology, Karachi Pakistan
8	Member, Board of Studies	Department of Electronic Engineering, Quaid-E-Awam University of Engineering, Science & Technology Nawabshah, Pakistan
9	Member, Board of Studies	Department of Electrical Engineering, Indus University, Karachi, Pakistan
10	Member, Post Graduate Program Review Committee	Post Graduate Programs, Dawood University of Engineering & Technology, Karachi, Pakistan
11	Member, Post Graduate Program Review Committee	Post Graduate Programs, Quaid-E-Awam University of Engineering, Science & Technology Nawabshah, Pakistan

Administrative Duties at Serving University:

S. No	Role	Responsibilities
1	Member, Senate of the Mehran University of Engineering and Technology, Jamshoro	- To consider and pass the university status as per university act. - To consider and approval the annual report, the statement of accounts, and the annual and revised budget estimates. - To appoint the members to the authorities in accordance with the provision of university act. - To delegate any of its power to an authority, officer or committee or sub-committee. - To perform such other functions as may be prescribe by university statutes.
2	Member, University Quality Enhancement Cell Self-Assessment Practices	To assess the progress and performance of all the undergraduate departments of university to meet the minimum criteria of Higher Education Commission to be internationally compatible.
3	Member, Board of Faculty of Electronics, Electrical and Computer Engineering	To discuss and approve the academic matters including degree programs, courses contents, academic plans etc.

Administrative Duties at Department Level:

S. No	Role	Responsibilities
1	Member, Departmental Board of Studies	- To advise the authorities on all academic matters concerned with instruction, publication, research and examination in the subject or subjects concerned. - To propose curriculum and syllabus for all degrees, diploma and certificate courses in the subject or concerned. - To suggest a panel of names of paper setters and examiners subjects concerned. - To perform such other functions as may be assigned to them by the statutes or regulations
2	Member, Departmental OBE Committee	To design the OBE based structure of the program curriculum and activities to be presented to Board of Study and further competent forums for review and approval.
3	Convener, Departmental Industrial Liaison Committee	- To manage Industrial internships and study tours. - To manage on- campus Job recruitment drives. - To conduct continuous, professional development courses. - To organize Seminars, Trainings, Conferences etc.
4	Member, Industrial Advisory Board	To maintain close interaction between Industry and Academia for involvement of the industry stakeholders in the designing, reviewing the PEOs of department

		To revise the program curriculum and activities whenever needed to make sure the graduates have adequate knowledge, skills, and attitude as per industry and market requirements.
5	Convener, Departmental Examination Committee	To smoothly conduct all types of examinations
6	Class Counsellor	To counsel the students on various matters as per guidelines of the Pakistan Engineering Council including academic problems, career-related matters, assistance in managing their health, stress, emotional and spiritual problems, and financial support.
7	Class Advisor	- To give basic career counselling to the students - To resolve class/lab problem of students - To arrange study visits and industrial tours - To resolve small petty internal conflicts.
8	Member, Course Equivalency Committee	To review and recommend the subjects/courses equivalency in case of exchange programs, migration etc.
9	Member, Examination Result Scrutiny Committee	To review and scrutinize any discrepancy in exam results
10	Member, Departmental Disciplinary Committee	- To resolve any conflicts between various student groups - To recommend punishment/penalty in case if there is no patch up.

Professional Bodies and Councils Served:

S. No	Name of Bodies/Councils	Position served	Period
1	IEEE –Mehran UET Student Chapter	Branch Counselor	September 2019 to August 2021
2	IEEE – Mehran UET Student Chapter	Branch Counselor	January 2016 to till January 2018
3	IEEE – Mehran UET Student Chapter	Branch Mentor	August 2008 to January 2016
4	IEEE-Karachi Section, Pakistan	Treasurer, IEEE Communication Society, Karachi Section,	August 2011 to August 2012
5	IEEE-Karachi Section, Pakistan	Chair, Membership Development Committee	June 2010 to July 2011