

## CURRICULUM VITAE

**Name:** Dr. ZAINUL ABDIN JAFFERY

**Professor**

Department of Electrical Engineering,  
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**Field of Specializations:** Digital Image Processing, Medical Image Processing, Computer Vision, Embedded System Design, ANN and CNN

**My Citation:**

<http://scholar.google.co.in/citations?user=v3iYC2kAAAAJ>

### **Educational Qualifications:**

1. **Ph.D. (2004):** From Jamia Millia Islamia, New Delhi;  
Development of algorithms using Neural networks for the estimation and equalization of communication channels.
2. **M.Sc. Engineering (1989):** From Aligarh Muslim University, Aligarh, 1<sup>st</sup> Div. with Honors, in Electronics and Communication Engineering.

### **Short term Courses:**

1. "Advance Semiconductor Materials and Devices", At Indian Institute of Technology (IIT) Madras, December 16-20, 1996.
2. "Web Design and Development", at Indian Institute of Technology (IIT) Delhi, December 8-12, 2003.

## Administrative Responsibilities in the University

At Present: Director, IQAC

Sr. No.	Position Held	Duration	Contributions
1	Director IQAC	25 <sup>th</sup> November,2024 till date.	
1	Head of Department of Electrical Engineering:	16thMay, 2017- 15 <sup>th</sup> May, 2020	<p>NBA Accreditation of the Department for six years.</p> <p>Two MoU signed from different organization to carry out training and research.</p> <p>Organized two GAIN Program funded by MHRD, Govt. Of India.</p> <p>Received R&amp;D fund of about Rs 400 lakhs</p>
2	Honorary Director, Training and Placement:	August 2016- till date	<p>Invited many Companies for the placement drive of the student of my university.</p> <p>Organized workshop for employment enhancement of the students of my university.</p> <p>Organized a number of talks/lectures on carrier opportunities for the student.</p>
3	Honorary Director, Centre for Innovation and Entrepreneurship  Honorary Dy. Director, Centre for Innovation and Entrepreneurship	Nov 2016- June 2017.  Nov 2015 - Nov 2016	<p>Established a Livelihood Business Incubation Centre with a fund of Rs 10 million received from Ministry of MSME, Govt of India</p> <p>Started programs to inculcate scientific temperament and innovation among the students.</p>
4	Sr. Warden: Boys Hostel, J.M.I.	May, 2010- May2013	<p>Started a New reading room in the hostel for in house students.</p> <p>Created few more recreational/ sport facilities in the hostel</p>
5	Coordinator, BE (Electrical) Program:	Jan2010- December2010	<p>As this is self financed program. Preparation and approval of budget for the program. Coordination between faculty and administration.</p>

## Sponsored Research Projects:

Sr. No.	Topic	Grant allocated	Sponsored by	Date of commencement	Duration	Status :
1	Resilient and reliability of a renewable based power electronic based power system	Rs. 9451900/	MHRD under SPARC	01-03-2019	2 years	completed
2	Visual Inspection System for Rail road Tracks	Rs 1435800/	UGC	01-04-2013	3 years	completed
3	Modernization of Basic Electronics Lab	Rs.10,00000/	AICTE , under MODROBS	2003	2 years	completed

## Research Guidance:

### A: Ph. D Thesis Guided and Awarded:

1. On some aspects of Wavelets and its Applications in Speech Analysis, Awarded to Mr. Pankaj Sharma, 2011.
2. Wavelets and its Applications in Biomedical Signal Processing. Awarded to Mr. Afroz, 2011.
3. Quality assessment of Soft computing-based control of Inverters, Awarded to Mr. Sunil Kumar Chaudhary, 2014.
4. Design and Development of Visual Inspection Systems, Awarded to Mr. Ashwani Kumar Dubey, 2014
5. Automated Detection and Classification of Tumor from Medical Imaging, Awarded to Mr. Laxman Singh, 2016
6. Design and Development of Equalizer for Time varying channels, Awarded to Mr. Zeeshan Ahmad Abbasi, 2018.
7. Renewable energy based Power management for Wireless Sensor Networks, Awarded to Mr. Himanshu Sharma, 2018.
8. Development of Low Power VLSI Techniques for Energy Efficient Digital Signal Processing, Awarded to Mr. Shaheen Khan, 2020.
9. Analysis of Power Line Channels for Broadband Communications, Awarded to Mr. Mukesh Kumar Varma, 2020.
10. Thermogram Image Processing: Aspects and Applications, Awarded to Mr. Irshad, 2020
11. Development of Vision based algorithm for Autonomous land vehicle, awarded to Mr. Altaf Alam, 2020
12. Development of Robust Image Coder, Awarded to Mr. Nadeem Ahmad, 2022.

13. Multiple Object Localization and Tracking, Awarded to Mr. Deepender Sharma, 2023.
14. Classification Of Skin Lesion Using Image Processing, Awarded to Ms. Ginni Arora, 2023

**On-going Research Work:**

1. Development and optimization of Recurrent Neural Network for Image Storage.
2. Quality Assessment of Agro-products using Infrared Imaging.
3. Design and Analysis of IoT-Enabled Smart Agriculture Framework.

**B: M. Tech. Dissertation Guided:**

1. Remote Kilo-watt-hour meter reading through Low voltage Power Line. (2006)
2. Modeling and Simulation of Power line Carrier Communication with Digital Modulations. (2007)
3. Development of an Efficient Equalizer for Power line Communication System. (2008)
4. Modeling and Simulation of Noise effects in Power line Communications. (2011)
5. Modeling and Simulation of Low voltage Power Line Communication Channel. (2011)
6. Fault Current Detection and Protection of 3-phase Power Transformer using Wavelet transform. (2012)
7. Reduction of Losses in Electrical Power Distribution System. (2012)
8. Image Processing based Autonomous Vehicle Control (2014)
9. Speech Recognition using Neural Network (2014)
10. Development of a Multichannel Remote controller for Home Appliances. (2015)
11. Vision based Specific person detection and Tracking. (2016).
12. Traffic Control Gesture recognition and detection (2016)
13. Design and Analysis of Micro-strip patch antenna for Vehicular communication system (2017)
14. Fault classification of PV Solar Panel using Fuzzy C-Means Clustering (2017)
15. Maximum Power point tracking Scheme for Solar PV system operating under non uniform solar irradiation (2018)
16. Algorithm for Object Detection and Avoidance using 2D LiDAR for Autonomous Vehicle. (2020)
17. Detection of Brain Tumor using Deep learning (2020).
18. Fault Detection of Induction Motor using Thermal Imaging (2021).

## **Membership of the Academic Societies:**

1. Senior Member IEEE (USA)
2. Life Member of Institution of Electronics and Telecommunication Engineers, India. (Membership No. M 085477)
3. Life Member of Indian Society for Technical Education, India.
4. Member System Society of India (Membership No. LM 30271)
5. Life Member of Indian Society for Industrial and Applied Mathematics, India. (Membership No. J9)

## **Publications**

### **A. Papers Published in Journal:**

1. Haq, Z.A., Jaffery, Z.A, Mehfuz, S. “Performance Evaluation of Generative AI Tool and Fuzzy Logic System in Defect Detection and Maturity Assessment of Guava Fruit”, *CyTA Journal of Food*, Taylor and Francis, vol. 20, no. 1, 2024
2. Haq, Z.A., Jaffery, Z.A, Mehfuz, S. “Integrated Approach for Defect Detection and Grading of Apples: thermal Imaging and Adaptive Neuro-Fuzzy Inference System for Enhanced Quality Assessment”, *Traitement du Signal.*, 2024.
3. D Sharma, Z A Jaffery, “Multiple Object localization and Tracking based on Boosted efficient binary local image descriptor” *MethodsX* , Elsevier, Vol. 11, 102354, 2023.
4. J P Yadav, L Singh, Z A Jaffery, “Optimization of Hopfield Neural Network (HNN) using multiconnection and Lyapunov Energy Function (LEF) for storage and recall of handwritten Images”, *Sādhanā* (Springer Published), vol. 48(1), pp.1-18, 2023.
5. D Sharma, Z A Jaffery, “Multiple Object Tracking through Background Learning, *Computer Systems Science and Engineering* vol.44 (1), pp.191-204, 2023.
6. G Arora, AK Dubey, Z A Jaffery, “Multiple skin lesion classification using deep, ensemble, and shallow (DEnSha) neural networks approach”, *International Journal of System Assurance Engineering and Management*, 1-9, 2023.
7. JKPS Yadav, ZA Jaffery, L Singh, “ Robust Automatic finger print recognition system using Multi-connection Hopfield Neural Network”, *Traitement du Signal*, vol 39 (9), pp. 683-694, 2022.
8. JKPS Yadav, ZA Jaffery, L Singh, “Optimization of Hopfield neural network for improved pattern recall and storage using Lyapunov energy function and hamming distance: MC-HNN”, *International Journal of Fuzzy System Applications (IJFSA)* 11 (2), 1-25, 2022.
9. A Alam, L Singh, ZA Jaffery, YK Verma, M Diwakar, “Distance-based confidence generation and aggregation of classifier for unstructured road detection”, *Journal of King Saud University-Computer and Information Sciences*, vol. 34 (10), pp. 8727- 8738, 2022.

10. A Alam, ZA Jaffery, H Sharma, "A cost-effective computer vision-based vehicle detection system", *Concurrent Engineering* v0ol.10 (2), pp.148-158,2022.
11. G. Arora, A. K. Dubey and Z. A. Jaffery "An Effective Skin Disease Segmentation Model based on Deep Convolutional Neural Network", *International Journal of Intelligent Information Technologies*, vol. 23, no. 3, 2022.
12. G. Arora, A. K. Dubey, Z. A. Jaffery and A. Rocha," A comparative study of fourteen deep learning networks for multi skin lesion classification (MSLC) on unbalanced data", *Neural Computing and Applications*, Jan. 2022.
13. G. Arora, A. K. Dubey and Z. A. Jaffery," Multiple Skin Lesion Classification utilizing Deep, Ensemble and Shallow Neural Networks", *International Journal of System Assurance and Engineering and Management*, 2022.
14. D Sharma, ZA Jaffery, "Categorical Vehicle Classification and Tracking using Deep Neural Networks", *International Journal of Advanced Computer Science and Applications* vol.12 (9), pp. 564-574, 2021.
15. G. Arora, A. K. Dubey, Z. A. Jaffery and A. Rocha, "Architecture of an effective convolutional deep neural network for segmentation of skin lesion in dermoscopic images", *Expert Systems*, Wiley, art no: e12689, 2021.
16. Irshad, Zainul A Jaffery, Nadeem Ahmad, Ashwani K Dubey, "An Intelligent Technique for The Health Assessment of Power Transformer using Thermal Imaging", *International Journal of Power and Energy Systems*, vol.41, no.1, pp. 2021.
17. Jay Kant P S Yadav, Zainul Abidin Jaffery, Laxman Singh, "A short review on machine learning techniques used for fingerprint recognition", *Journal of Critical Reviews*, ISSN- 2394-5125 vol. 7, no.13, pp. 2768-2773, 2020.
18. Md Sarwar, A S Siddiqui, Zainul Abidin Jaffery, DP Kothari, "Bid responsive generation rescheduling for congestion management in electricity market", *Engineering Reports*, John Wiley & Sons, Inc., 2021.
19. Arora, G., Dubey, A.K., Jaffery, Z.A., Rocha, A., "Bag of feature and support vector machine based early diagnosis of skin cancer", *Neural Computing and Applications*, 2020.
20. Khan, S., Jaffery, Z.A., "Modulo ring adder for high speed DA-RNS system", *International Journal of Advanced Science and Technology*, vol. 29(4), pp. 582-596, 2020.
21. Kalra, D., Kumar, M. , Singh, L., Jaffery, Z.A., "Design Analysis of Inductorless Active Loaded Low Power UWB LNA Using Noise Cancellation Technique", *Frequenze*, vol.74, no.3-4, pp.137-144, 2020.
22. Nadeem Ahmad, ZainulAbidinJaffery, Irshad. "An approach to JPEG Image Artifact Reduction based on Type-2 Fuzzy Hybrid system" *International Journal of Advanced Science and Technology* (IJAST) Vol.29, No. 7s, (2020), pp. 5936-5949
23. Shiraz Sohail , Zainul Abidin Jaffery and Karabi Biswa, "Jigsaw Electrode Design for Electro wetting Devices", *IET Micro and Nano Letters*, UK, May, 2019. [DOI: 10.1049/mnl.2019.0027].
24. Altaf Alam and Zainul Abidin Jaffery, "Indian Traffic Sign Detection and Recognition", *International Journal of Intelligent Transportation Systems Research*, Springer Nature. , vol. 18(1), pp. 98-112, 2020. [<https://doi.org/10.1007/s13177-019-00178-1>].

25. Z. A. Abbasi and Z. A. Jaffery, "Weighted Neuro-Fuzzy Hybrid Algorithm for Channel Equalization in Time Varying Channel", *International Journal of Business Intelligence and Data Mining*, vol. 17(2), pp. 237-257, 2020.
26. Altaf Alam, Zainul Abdin Jaffery, "A Vision Based Indian Traffic Sign Classification," *International Journal of Recent Technology and Engineering (IJRTE)*, 2020. (Scopus Index).
27. Shaheen Khan and Zainul Abdin Jaffery, Modified High-speed FIR filter using DA-RNS architecture, *International Journal of Advanced Science and Technology*, Vol. 29, No. 4, 2020, pp. 554-570.
28. Shiraz Sohail , Zainul Abdin Jaffery and Karabi Biswas, "Study of threshold voltage for different electrode shapes in electrowetting device", *Mater. Res. Express* vol. 6 ,pp. 046414. 2019. [<https://doi.org/10.1088/2053-1591/aafade>]
29. Mukesh Kumar Varma, Z. A. Jaffery and Ibraheem "Broadband power line communication: The channel and Noise analysis for a Power Line Network" *International journal of Computer Network & Communications (IJCNC)*, Vol.11, No.1, January 2019.
30. A Haque K V S Bharath, M A Khan, I Khan and Z A Jaffery, "Fault diagnosis of Photovoltaic Modules", *Energy Sci Eng.* 2018.
31. Himanshu Sharma, Ahteshamul Haque, and Zainul A. Jaffery, "Modeling and Optimisation of a Solar Energy Harvesting System for Wireless Sensor Network Nodes", *Journal of Sensor and Actuator Networks*, vol. 7 (3), 2018
32. Irshad, Z. A. Jaffery and A Haque, "Temperature measurement of solar module in outdoor operating conditions using thermal Imaging", *Infrared Physics & Technology*, vol.92, pp. 134-138, 2018
33. Laxman Singh and Z. A. Jaffery, "Computer-aided diagnosis of breast cancer in digital mammograms", *Int. J. Biomedical Engineering and Technology*, Vol. 27, No. 3,pp. 233-245, 2018
34. G. Arora, AK Dubey, Z. A. Jaffery, "Classifiers for the Detection of Skin Cancer", *Smart Computing and Informatics*, 351-360, 2018
35. Himanshu Sharma, Ahteshamul Haque, and Zainul A. Jaffery," Solar energy harvesting wireless sensor network nodes: A survey" *Journal of Renewable and Sustainable Energy* 10, 023704 (2018); doi: 10.1063/1.5006619.
36. Laxman Singh and Z. A. Jaffery "Computerized detection of breast cancer in digital mammograms", *International Journal of Computers and applications*, vol.40,no.2,pp.98-109,2018,<https://doi.org/10.1080/1206212X.2017.1395131>.
37. Mukesh Kumar Varma, Zainul Abdin Jaffery and Ibraheem Nasiruddin "Analysis of High Performance Low Power Broadband Powerline Channel using S-Parameter" *International journal of Research in Electronics and computer Engineering, IJRECE* Vol. 6, Issue 3, 2018, ISSN: 2393-9028.
38. Z. A. Jaffery, A. K. Dubey, Irshad and Ahteshamul Haque, "Scheme for predictive fault diagnosis in Photo-voltaic modules using Thermal imaging", *Infrared Physics & Technology*, vol.83, pp. 182-187, 2017.
39. Laxman Singh and Zainul Abdin Jaffery, "Hybrid technique for the detection of suspicious lesions in digital mammograms", *International Journal of*

- Biomedical Engineering and Technology, vol.24, no.2,pp. 184-195, 2017, (ISSN online: 1752-6426, ISSN print: 1752-6418).
40. Zeeshan A. Abbasi and Zainul Abdin Jaffery, "Equalization of MIMO-OFDM System under Time Varying Channel using ANFIS", *Indian Journal of Science and Technology*, Vol 10(34), pp. 1-12, 2017, [DOI: 10.17485/ijst/2017/v10i34/99321].
  41. Zainul Abdin Jaffery and Shaheen Khan, "Optimized Inner Product Computation Architectures using DAOB", *International Journal of Applied Engineering Research* (ISSN 0973-4562) vol. 12, No 17, pp. 6462-6471, 2017.
  42. J P Singh Yadav, laxman Singh, Z. A. Jaffery, "Comparative Analysis of Recurrent Networks for Pattern Storage and Recalling of Static Images", *International Journal of Computer Applications* (0975 – 8887),vol. 170, No.10, pp. 15-19, July2017.
  43. Z. A. Jaffery, Zaheeruddin and Laxman Singh, "Computerized segmentation of suspicious lesions in digital mammograms", *Computer methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*, vol.5, no.2, pp.77-86, 2017, [DOI: 10.1080/21681163.2014.982304]
  44. A. K. Dubey and Z. A. Jaffery, "Maximally Stable External Region Marking based Railway Trak Surface defect sensing", *IEEE Sensors Journal*, vol. 16,no.24, December 2016.
  45. Zeeshan A. Abbasi, Z. A. Jaffery, "Study of Linear and Decision Feedback Equalizers on Fading Channels", *Communications on Applied Electronics (CAE) Volume 5 – No.1*, May 2016. USA
  46. Z. A. Jaffery and A. K. Dubey, "Scope and prospects of Non-Invasive Visual Inspection Systems for Industrial Applications", *Indian Journal of Science and Technology*, Vol 9(4), pp. 1-11, 2016.[ DOI: 10.17485/ijst/2016/v9i4/80067].
  47. Zeeshan A. Abbasi, Z. A. Jaffery, "Pilot based Channel Estimation and SCGNN based Equalization for MIMO-OFDM System", *International Journal of Computer Applications*, vol. 131,no3, pp. 11-15, 2015.
  48. Z. A. Jaffery and A. K. Dubey, "Design of early fault detection technique for Electrical assets using infrared thermograms", *Electrical Power and Energy Systems*, vol. 63, pp. 753-759, 2014.
  49. Afroz, Z. A. Jaffery, Khalil Ahmad, "ECG Baseline Drift Elimination Using Wavelet Packets Transform", *Australian Journal of Basic and Applied Sciences*, vol.8 no.3, pp. 459-466, March 2014.
  50. Z. A. Jaffery, Zaheeruddin and Laxman Singh, "Performance Analysis of Image Segmentation Methods for the Detection of Masses in Mammograms", *International Journal of Computer Applications*, vol.82, no.2, pp. 44-50, 2013.
  51. Afroz and Z.A. Jaffery, "Applications of Wavelet Packets in ECG Signal Denoising", *Journal of Wavelet Theory and Applications*. vol. 7, no. 1, pp. 35-44, 2013.
  52. Z. A. Jaffery and A. K. Dubey, "Testing and Calibration of Temperature Gauges using Webcam based Non-Invasive Technique", *International Journal*

- of Computer Applications, vol.79, no.1, pp. 41-47, 2013. (doi: 10.5120/13709-1462).
53. Z. A. Jaffery and A. K. Dubey, "Architecture of Noninvasive Real time Visual monitoring system for dial type measuring instruments", IEEE Sensors Journal, vol.13, no.4, pp.1236-1244, April 2013. (doi: 10.1109/JSEN.2012.2231940).
  54. Z. A. Jaffery, K. Ahmad and Pankaj Sharma, "Selection of Optimal decomposition level based on entropy for speech denoising using Wavelet packet", Journal of Bioinformatics and Intelligent control, vol. 1, no.2, pp.196-202, 2013. (DOI:10.1166/jbic.2013.1026).
  55. Z A Jaffery and S. K. Chaudhry, "Quality Assessment of a Single-phase resonant inverter", International Journal of Power Electronics and Drive System (IJPEDS), vol.2, no.4, pp. 364-370, December 2012.
  56. Z. A. Jaffery, Moinuddin and Munish Kumar, "Enhanced Bandwidth Utilization in WLAN for Multimedia data", International Journal of Advances in Engineering & Technology, vol. 2,no. 1, pp. 299-308, 2012. (ISSN: 2231-1963).
  57. K. Ahmad, Z. A. Jaffery and Afroz, "Denoising of ECG Signal using Wavelet Transform", JMI International Journal of Mathematical Sciences, vol. 2, no. 1, pp. 26-33, 2011.
  58. Z. A. Jaffery, Moinuddin and Munish Kumar, "Adaptive Clustering based on Residual Energy on Sensor Nodes in Wireless Sensor Network for Multimedia data", International Journal of Computer Applications, vol. 33, no. 1, pp.25-29, 2011. (USA).
  59. Z. A. Jaffery, Moinuddin and Munish Kumar, "Residual Energy aware adaptive Clustering for Multimedia data in wireless Sensor Network", International Journal of Computer Science and Telecommunications, Vol. 2, no. 8, pp. 7-11, 2011. (UK).
  60. Z. A. Jaffery, V. K. Chadana and S. K. Chaudgry, "Sensitivity of input blocking capacitor on output voltage and current of a PV inverter employing IGBTs", International Journal of Electrical and Electronics Engineering, vol. 5, no.4, pp. 311-315, 2011. (WASET).
  61. Z. A. Jaffery, "Adaptive Equalization of Digital Communication Channel using Feed-forward Neural Network", Journal of Communication and Computer, , vol. 8,no.5, pp. 404-409,2011. (USA).
  62. Z. A. Jaffery, K. Ahmad and Pankaj Sharma, "Applications of Wavelet Packets in Speech denoising", International Journal of Mathematical Science, vol. 1, no. 2, pp. 57-66, 2010.
  63. Z. A. Jaffery, K. Ahmad and Pankaj Sharma, " Noise Reduction in Speech Signal using Thresholding in Wavelet Transform domain", International Journal of Applied Engineering Research, vol. 5, no. 14, pp.2503-2509, 2010.
  64. S. K. Chaudgry, Z. A. Jaffery and V. K. Chadana, " Quality Assessment of Low cost Voltage Control Voltage Source (VCVS) Inverter using Matlab Simulink., International Journal of Electrical Engineering, vol. 3, no. 1, pp. 15-24, 2010.

65. Z. A. Jaffery, "Generalized Neuron based Adaptive Channel Equalization" *Inverties Journal of Science and Technology*, vol. 2, no. 3, pp.153-160, 2009.
66. Akshay Sharma, G. Sheoran, Z. A. Jaffery, Moinuddin, "Improvement of signal to noise ratio in digital holography using wavelet transform", (Elsevier) *Journal of Optics and Laser Engineering*, vol.46(1), pp. 42-47, 2008.

## **B. Paper Presented and Published in Proceedings of International / National Conferences:**

1. **J. K. P. S. Yadav**, Z. A. Jaffery, and L. Singh (2024). Automatic Face Recognition using Legendre Moments and Auto-Associative Memory. *2<sup>nd</sup> IEEE International Conference on Intelligent Cyber Physical Systems and Internet of Things, Coimbatore, 28-30 August 2024. DOI: 10.1109/ICoICI62503.2024.10696115*
2. **J. K. P. S. Yadav**, Z. A. Jaffery, and L. Singh (2024). Robust Face Recognition Using Histogram of Oriented Gradients and Auto-Associative Memory Network. *2nd IEEE International Conference on IoT, Communication and Automation Technology (ICICAT 2024), Gorakhpur, 23-24 November 2024*
3. Z. A. Haq and Z. A. Jaffery, S. Mehruz "Machine Learning Algorithm for Multiclass Fruit Classification: A comparative Analysis," *2024 International Conference on Computing and Machine Learning, CML 2024, Sikkim, India, 2024*
4. Z. A. Haq, M. Ashhad, Z. A. Jaffery and S. Mehruz, "Infrared Imaging Technique and Multi-Input Neural Network for Potato Defect detection," *2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), New Delhi, India, 2023, pp. 196-200, doi: 10.1109/REEDCON57544.2023.10150501.*
5. Z. A. Haq and Z. A. Jaffery, "Impact of Activation Functions and Number of Layers on the Classification of Fruits using CNN," *2021 8th International Conference on Computing for Sustainable Global Development (INDIACom), New Delhi, India, 2021, pp. 227-231.*
6. Z A Haq, Z A Jaffery, S Mehruz, "A Novel Framework for Smart Agriculture using Internet of Things and Enabling Technologies", *International Conference for Advancement in Technology (ICONAT)*, 1-6, 2022.
7. A N Sabah, Z A Jaffery, "Fault Detection of Induction Motor Using Thermal Imaging", *IEEE IAS Global Conference on Emerging Technologies (GlobConET)*, 84-90, 2022.
8. A Malik, A Haque, KV Satya Bharath, Z A Jaffery, "Transfer learning-based novel fault classification technique for grid-connected PV Inverter", *Innovations in Electrical and Electronic Engineering: Proceedings of ICEEE* , 2021
9. Z A Haq, Z A Jaffery, "Impact of activation functions and number of layers on the classification of fruits using CNN", *8th IEEE International Conference on*

Computing for Sustainable Global Development (IndiaCom), New Delhi, 2021

10. Z A Jaffery, M K Varma, "Broadband Power-Line Communication in Self-Reliant Microgrid Distribution Network-an Overview", ICT Systems and Sustainability: Proceedings of ICT4SD 2019, Volume 1, 215-224,2020.
11. Altaf Alam and Z A Jaffery, "Decision Tree Classifier Based Pedestrian Detection for Autonomous Land Vehicle Development", Proceeding of IEEE International Conference on Power Electronics, Control and Automation, (ICPECA 2019), New Delhi, November 16-17, 2019.
12. Altaf Alam, Zainul Abdin Jaffery, "Nearest Neighbor Classifier for Vision-Based Unstructured Road detection," Proceeding of IEEE International Conference on Power Electronics, Control and Automation, (ICPECA 2019), New Delhi, November 16-17, 2019.
13. Irshad, Z. A. Jaffery, A. Haque, A.K. Dubey, "Thermography Based Real Time Intelligent Condition Monitoring System for Solar Power Inverter", Proceeding of IEEE International Conference on Power Electronics, Control and Automation, (ICPECA 2019), New Delhi, November 16-17, 2019.
14. Nadeem Ahmad and Zainul Abdin Jaffery, D. Sharma, "Low bit-rate image coding based on dual tree complex wavelet transform", Proceeding of IEEE International Conference on Power Electronics, Control and Automation, (ICPECA 2019), New Delhi, November 16-17, 2019.
15. Shaheen Khan and Z. A. Jaffery and "Implementation of special moduli set adders", Proceedings of IEEE International conference (INDIACOM, 13-15 March, 2019).
16. Mukesh Kumar Varma, Zainul Abdin Jaffery and Ibraheem "Performance Analysis of Broadband Power Line Channel for different Topologies", Proceeding of IEEE International Conference on Power Electronics, Control and Automation, (ICPECA 2019), New Delhi, November 16-17, 2019.
17. Z. A. Jaffery , Ibraheem , and Mukesh Kumar Varma, "Broadband power line communication in self-reliant micro-grid distribution network-An overview " *proceeding Springer sponsored 4'th International Conference on ICT for Sustainable Development, ICT4SD 2019,5-7 July 2019, Goa, India , pp. 215-224.*
18. Deependra Sharma Zainul Abdin Jaffery Nadeem Ahmad, "Categorical vehicle classification using Deep Neural Networks", Proceeding of IEEE International Conference on Power Electronics, Control and Automation, (ICPECA 2019), New Delhi, November 16-17, 2019.
19. Himanshu Sharma, A Haque, Zainul Abdin Jaffery, "Research Issues in Energy Harvesting Internet of Things", Proceeding of IEEE International Conference on Power Electronics, Control and Automation, (ICPECA 2019), New Delhi, November 16-17, 2019.
20. Himanshu Sharma, Ahteshamul Haque, Zainul Abdin Jaffer, "Design & Analysis of PWM & MPPT Power Converters for Energy Harvesting IoT Nodes", Proceeding of IEEE International Conference on Power Electronics, Control and Automation, (ICPECA 2019), New Delhi, November 16-17, 2019.
21. Zainul Abdin Jaffery and Nadeem Ahmad." An approach to color image coding based on adaptive Block Truncation Coding" *In Book series Advances in Intelligent Systems and Computing through International Conference on*

- Signals, Machines and Automation (SIGMA'18)*, NSIT Delhi, India, February 23-25, 2018,
22. Altaf Alam and Zainul Abdin Jaffery, "A vision based system for the Traffic light detection" *In Book series Advances in Intelligent Systems and Computing through International Conference on Signals, Machines and Automation (SIGMA'18)*, , NSIT Delhi, India, February 23-25, 2018.
  23. Mukesh Kumar Varma, ZainulAbdinJaffery and IbraheemNasiruddin "Analysis of High Performance Low Power Broadband Powerline Channel using S-Parameter" *Proceeding XIV International Conference on Recent Trends in Engineering Science and Management, (ICRTESSM-18)*, Osmania University Campus, Hyderabad (India), August 5, 2018.
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