

CURRICULUM VITAE

Name: Dr. ZAINUL ABDIN JAFFERY

Professor

Department of Electrical Engineering,
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Field of Specializations: Digital Signal Processing, Digital Image Processing, Computer Vision, Embedded System Design, applications in Power & Electronics Engineering

My Citation:

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

<https://orcid.org/0000-0002-3502-6599>

Scopus ID: 22834716900

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 with 1st Div. with Honours, in Electronics and Communication Engineering
3. **B.Sc. Engineering (1987):** From Aligarh Muslim University, Aligarh with 1st Div. with Honours, in Electrical Engineering.
4. **PUC (1982)** From AMU Aligarh.
5. **High School (1980)** UP board

Academic/ Administrative Responsibilities in the University

Sr. No.	Position Held	Duration	Contributions
1	Head of Department of Electrical Engineering :	16thMay, 2017- 15 th May, 2020	<p style="text-align: center;">NBA Accreditation of the B.Tech. 22834716900</p> <p>(Electrical Engineering) Program 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&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>

Teaching and Academic works:

- Courses taught at Graduation and Post Graduation Level:
Digital Image Processing, Digital Electronics, Microprocessor, Communication Engineering, Digital Signal Processing, Digital communication, Telecommunication Networks and Switching Systems, Soft Computing Techniques, etc.
- Established Communication Engineering Laboratory in the Department.
- Modernization and development of Basic Electronics Laboratory for the undergraduate students. For this we also received a grant of Rs. 10.0 lacks from the AICTE under MODROB scheme.
- Designed a course on Digital Signal Processing, for B.Tech (Electrical) final year Students.
- Designed a course on Advance Digital Signal Processing, for M.Tech (Control and Instrumentation) students.
- Designed a course on Embedded System Design, for M.Tech (Control and Instrumentation) students.
- Prepared a Laboratory Manual for Basic Electronics Laboratory for B.Tech (Electrical) 2nd year students.
- Prepared a Laboratory Manual for Digital Electronics Laboratory for B.Tech (Electrical) 2nd year students.

Research Project:

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	On going (Co-PI)
2	Visual Inspection System for Rail road Tracks	Rs 1435800/	UGC	01-04-2013	3 years	Completed (PI)
3	Modernization of Basic Electronics Lab	Rs.10,00000/	AICTE , under MODROBS	01-07-2003	2 years	Completed (PI)

Research Guidance:

A: Ph. D Thesis Awarded:

1. "On some aspects of Wavelets and its Applications in Speech Analysis". Awarded to Pankaj Sharma under the supervision of Prof. Khalil Ahmad and Dr. Z. A. Jaffery in 2011.
2. "Wavelets and its Applications in Biomedical Signal Processing". Awarded to Afroz under the supervision of Prof. Khalil Ahmad and Dr. Z. A. Jaffery in 2011.
3. "Quality assessment of soft computing based control of Inverters" Awarded to Sunil Kumar Chaudhary under the supervision of Dr. Z. A. Jaffery in 2014.
4. "Design and Development of Visual Inspection Systems", Awarded to Ashwani Kumar Dubey under the supervision of Dr. Z. A. Jaffery in 2014
5. "Automated Detection and Classification of Tumor from Medical Imaging", Awarded to Laxman Singh under the supervision of Dr. Z. A. Jaffery in 2016
6. "Design and Development of Equalizer for Time varying channels", awarded to Zeeshan Ahmad Abbasi in 2018.
7. Development of Low Power VLSI Techniques for Energy Efficient Digital Signal Processing, awarded to Shaheen Khan, 2020.
8. Analysis of Power Line Channels For Broadband Communications, awarded to Mukesh Kumar Varma, 2020.
9. Thermogram Image Processing: Aspects and Applications, awarded to Irshad, 2020
10. Development of vision based algorithm for autonomous land vehicle, awarded to Altaf Alam, 2020

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. Maximum Power point tracking Scheme for Solar PV system operating under non uniform solar irradiation (2018)

C: B. Tech. Project Guide:

Guided many projects at U.G. level in area of Electrical and Electronics Engineering.

Conference and workshops attended:

1. Workshop on “IT for All – Emerging Challenges”, Organized by F/O Engg. & Tech. Jamia Millia Islamia, New Delhi, Feb. 7, 2001.
2. National Conference on “Management of Higher Education: 21st Century Challenges”. Organized by F/O Engg. & Tech. Jamia Millia Islamia, New Delhi, Feb. 9, 2002.
3. Workshop on Development of Quality Question Paper, Organized by the ASC, Jamia Millia Islamia, New Delhi, January 10 –13, 2003
4. IEEE Indo – Pak Conference on “Impact of Infrastructure Reforms on Development”, New Delhi, February 19-20, 2005.

Short term Courses Attended:

1. “Advance Semiconductor Materials and Devices”, At IIT Madras, December 16-20, 1996.
2. “Web Design and Development”, at IIT Delhi, December 8-12, 2003.
3. “MATLAB and Soft Computing in Electrical Engineering”, at Department of Electrical Engineering, Jamia Millia Islamia, New Delhi. December 17-31, 2004.

Extension / Invited Lecture Delivered:

1. Invited Lecture on “ How to Promote Entrepreneurship in India”, DST funded DDP on Entrepreneurship, Organized by Teerthankar Mahaveer University, Moradabad, UP, April 29,2021
2. Invited Lecture on “ Embedded System Design: Issues and Challenges for Researchers”. Invited lecture by Department of Electronics, Jaipur National University, Jaipur, Rajasthan. April 6, 2021.
3. Invited lecture on “Thermal Imaging for Condition monitoring”, FDP program on AI, machine learning & Cyber security in Healthcare, organized by Amity University, Noida, UP, July 4-5, 2020

4. Invited Key note lecture on, “Thermal Imaging based Predictive fault analysis of Solar PV Module”, Seminar on Smart Energy solution to boost Power sector economy during pandemic, organised by Dept. of Electrical Engineering, Teerthankar Mahaveer Univesity, Moradabad, UP, June 6, 2020.
5. Invited Lecture on “**Tharmal Imaging: A new tool for predictive fault detection in solar PV System**”, One week FDP on Modern Trends in Renewable Energy sources, organised by Maharaja Agrasen Institute of Technology, New Delhi, 13-18 May , 2019.
6. Invited Lecture on “ **Tharmal Imaging: A new tool for predictive fault detection in solar PV System**”, Two Weeks Training Programme on Roof Top Solar Grid Engineer in Collaboration with NISE, Department of Electrical Engineering, JamiaMilliaIslamia, New Delhi, February 2019
7. Invited Lecture on “**Basic concept of Off Grid SPV Plant and Grid Connected Rooftop SPV power plant**”, Two Weeks Training Programme on Roof Top Solar Grid Engineer in Collaboration with NISE, Department of Electrical Engineering, JamiaMilliaIslamia, New Delhi, January 2019.
8. Invited Lecture on “**Outcome Based Teaching-Learning: Issues and Challenges in India**”, One week FDP on Essentials of Teaching-Learning Process and Research Methodology, organised by Rajkiya Engineering Collage, Ambedkar Nagar, Uttar Pradesh., February 04-08, 2019
9. Invited Lecture on “E-Waste Management”, two week FDP program, organized by University Polytechnic, Jamia Millia Islamia, New Delhi, February-2012.
10. Invited Lecture on “A Fuzzy logic based approach to Non-linear system modeling” one week FDP program, organized by National Institute of Technology, Jalandher, Punjab. 2009.
11. Invited Lecture on “A Fuzzy logic based approach to Non-linear system modeling”, at Aerial Delivery Research and Development Establishment (Govt. of India), Agra, January – 2008,
12. Invited Lecture on “Image Processing using MATLAB”, at Aerial Delivery Research and Development Establishment (Govt. of India), Agra, August – 2006,

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. Laxman Sing, Altaf Alam, Zainul Abdin Jaffery, “Design of thermal imaging-based health condition monitoring and early fault detection technique for porcelain insulators using Machine learning”, *Environmental Technology & Innovation*, October 2021 (doi.org/10.1016/j.eti.2021.102000)
2. Laxman Sing, Altaf Alam, Zainul Abdin Jaffery, “Distance-based confidence generation and aggregation of classifier for unstructured road detection”, *Journal of King Saud University –Computer and Information Sciences*, September 2021 (doi.org/10.1016/j.jksuci.2021.09.020).
3. Arora, G., Dubey, A.K., Jaffery, Z.A., Rocha, A., “ Architecture of an effective convolutional deep neural network for segmentation of skin lesion in dermoscopic images”, *Expert System*, February, 2021 (doi: 10.1111/exsy.12689)
4. 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.
5. Jay Kant P S Yadav, Zainul Abdin 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.
6. Md Sarwar, A S Siddiqui, Zainul Abdin Jaffery, DP Kothari, “Bid responsive generation rescheduling for congestion management in electricity market”, *Engineering Reports*, John Wiley & Sons, Inc., 2021.
7. 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.
8. 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.
9. 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.
10. Nadeem Ahmad, ZainulAbdinJaffery, 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
11. Shiraz Sohail , Zainul Abdin 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].
12. Altaf Alam and Zainul Abdin 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].

13. 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.
14. Altaf Alam, Zainul Abdin Jaffery, "A Vision Based Indian Traffic Sign Classification," *International Journal of Recent Technology and Engineering (IJRTE)*, 2020. (Scopus Index).
15. 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.
16. 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>]
17. 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.
18. A Haque K V S Bharath, M A Khan, I Khan and Z A Jaffery, "Fault diagnosis of Photovoltaic Modules", *Energy Sci Eng.* 2018.
19. 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
20. 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
21. 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
22. G. Arora, AK Dubey, Z. A. Jaffery, "Classifiers for the Detection of Skin Cancer", *Smart Computing and Informatics*, 351-360, 2018
23. 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.
24. 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>.
25. 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.
26. 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.
27. 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).
28. 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].
 29. 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.
 30. 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.
 31. 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]
 32. 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.
 33. 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
 34. 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].
 35. 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.
 36. 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.
 37. 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.
 38. 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.
 39. 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.
 40. 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).
41. 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).
 42. 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).
 43. 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.
 44. 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).
 45. 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.
 46. 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).
 47. 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).
 48. 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).
 49. 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).
 50. 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.
 51. 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.
 52. 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.

53. Z. A. Jaffery, "Generalized Neuron based Adaptive Channel Equalization" *Inverties Journal of Science and Technology*, vol. 2, no. 3, pp.153-160, 2009.
54. 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. 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.
2. 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.
3. 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.
4. 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.
5. Shaheen Khan and Z. A. Jaffery and "Implementation of special modulii set adders", *Proceedings of IEEE International conference (INDIACOM, 13-15 March, 2019)*.
6. 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.
7. 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.*
8. 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.
9. 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.
10. 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.
11. 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,
 12. 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.
 13. 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.
 14. Mukesh Kumar Varma, ZainulAbdinJaffery and IbraheemNasiruddin “Comparative study and investigation of the Broadband powerline channel model” *Proceeding 2’nd IEEE International conference on Power Electronics, Intelligent control and Energy system, (ICPEICES-2018)*, DTU, Delhi, Oct.20-24,2018, pp.1420-1425.
 15. Mukesh Kumar Varma, Zainul Abdin Jaffery and Ibraheem “A comprehensive study on channel modeling of broadband communication over low voltage power line” *proceeding IEEE sponsored 5th International Conference on Signal Processing and Integrated Networks, SPIN 2018, Amity University, Noida, India, February 22-23, 2018.*
 16. G.Arora, A.K.Dubey and Z. A. Jaffery,” Performance Measure Based Segmentation Techniques for Skin Cancer Detection”, *Intl Conf. on Recent Developments in Science, Engineering and Technology*, pp 226-233, Mar. 2018. (SCOPUS)
 17. Mukesh Kumar Varma, Zainul Abdin Jaffery and Ibraheem “ Broadband power line communication: Solution for the next generation access network” *proceeding IEEE sponsored 41st national system Conference , Dayalbagh Educational Institute, Agra, India, December 1-3 , 2017*
 18. G. Arora, A. K. Dubey and Z. A. Jaffery,” Classifiers for the Detection of Skin Cancer”, *Intl Conf. on Smart Computing and Informatics*, pp 351-360, Oct. 2017. (SCOPUS).
 19. Zainul Abdin Jaffery, D.Sharma and Nadeem Ahmad.”Detection of missing Nuts and Bolts on rail Fishplates” *IEEE International Conf. on Multimedia Signal Processing and Communication Technologies (IMPACT)*, AMU, India 2017
 20. Zainul Abdin Jaffery, Nadeem Ahmad and D.Sharma.” Performance comparison of segmentation techniques for the detection of defects in rail head surface images” *IEEE International Conf. on Multimedia Signal Processing and Communication Technologies (IMPACT)*, AMU, India 2017
 21. Shaheen Khan and Z.A. Jaffery.”Parallel-prefix modulo adders: A review”, *IEEE International Conference, INDICON, IIT, Roorkee, India (Dec.2017)* 1-4

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