

PROFILE



- 1. Name** : **Dr. K.R.VALLUVAN** B.Sc., B.Tech., DIISc., M.E., Ph.D.,
MISTE, FIE, MIEEE.
- 2. Date of birth** : 28-03-1962
- 3. Designation** : Professor - ECE & Controller Of Examinations,
Address: Dept. of ECE,
Velalar College of Engineering & Technology, Erode – 638 012
Tamilnadu, India.

4. Educational Qualifications:

| Degree | University | Year of passing | Field of Specialisation | Marks, Class |
|---------|-----------------------------|-----------------|---------------------------------|--------------|
| SSLC | Board of Sec. Edn, TN | May 1978 | General | 73% |
| PUC | Madras University | June 1979 | Mathematics, Physics, Chemistry | 79% |
| B.Sc. | Madras University | May 1982 | Physics | 84%, First |
| B.Tech. | Anna University | May 1985 | Electronics Engineering | 71%, First |
| DIISc. | Indian Institute of Science | July 1986 | Electronics Design Technology | 5.9/8, First |
| M.E. | Bharathiar University | Dec 2001 | Computer Science & Engg. | 82%, FWD |
| Ph.D. | Anna University | 12-10-2009 | Information & Commn. Engg. | - |

Title of the PhD Thesis: Implementation of ADALINE on DSP and FPGA for Measurement of Harmonics.

- Anna University Chennai – Supervisor Recognition No: 2740068
- Anna University Faculty code: 7329102
- AICTE Faculty code : 1-725849133 (VCET Permanent Id: 1- 3451381)
- Life Member, ISTE (LM 27847, since 5-11-99)
- IEEE Member No: **92135852** (since Nov. 2011)
- FELLOW of The Institution of Engineers (India) – F1207063 – since 16-2-16

5. Employment record –Experience:Total : 37years (Academic:26 years+ Industry:11 years)

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| Institution | Designation | Period | | Duration |
|-------------------------------------|----------------------------|-----------|------------|----------|
| | | From | To | |
| Velalar College of Engg. & Tech. | Prof – ECE & COE | 1-7-2011 | Till date | |
| EBET Group of Institutions | Dean –IR & Prof., CSE | 14-6-2010 | 31-6-2011 | 1y |
| Kongu Engineering College | Professor | 1-8-2007 | 31-5-2010 | 2y 9m |
| | Assistant Professor | 1-3-2001 | 31-7-2007 | 5y 8 m |
| | Lecturer | 18-6-1997 | 28-2-2001 | 3 y 6m |
| Design Consultant | Electronic System Designer | 1-11-1996 | 17-6-1997 | 0y7.5m |
| Lakshmi Steel Rolling Mills | Works Manager | 10-8-1994 | 31-10-1996 | 2 y 2m |
| Wipro GE Medical Systems, Bangalore | Senior Design Engineer | 1-4-1993 | 31-7-1994 | 1y 4m |
| SPA Computers Ltd., Bangalore | Deputy Manager | 15-2-1989 | 31-3-1993 | 4 y 1 m |
| ASEA Ltd. Bangalore | Quality Assurance Engineer | 1-8-1986 | 11-2-1989 | 2 y 6m |

6. Publications:

Books Authored:

| No | Title of the Book | Authors | Issue Date | No. of pages, Price | ISBN | Publisher |
|----|------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------|------------------------------------|--------------------------|
| 1 | Medical Electronics | Dr.K.R.Valluvan, B.S.Sharomena Aarthi | 1 st edn. 2015, 2 nd edn 2016, 12-10- 17 | 240, Rs.165 | 978-93- 86532-44-2 | Charulatha Publishers |
| 2 | Fundamentals of Electric Circuits & Electron Devices | Dr.K.R.Valluvan, T.Sathya, P.Nandhini | 2018, 12-2-18 | 290, Rs.275 | 978-93- 86532-67-1 | Charulatha Publishers |
| 3 | Fundamentals of Analog Electronic Circuits –Volume1 | Dr.K.R.Valluvan, K.S.Murugesan | 2018, 27-7-18 | 340, Rs.325 | 978-93- 86532-95-4 | Charulatha Publishers |
| 4 | Fundamentals of Semiconductor Devices | Dr.K.R.Valluvan, M.Vijayan | 2018, 25-10- 18 | 245, Rs.275 | 978-93- 88335-17-1 | Charulatha Publishers |
| 5 | Basic Electrical Engineering | Dr.K.R.Valluvan, M.Vijayan T.Sathya, P.Nandhini | 2019, 8-2-19 | 380, Rs.450 | 978-93- 88335-64-5 | Charulatha Publishers |
| 6 | Medical Electronics | Dr.K.R.Valluvan, B.S.Sharomena Aarthi Dr.D.Ganeshkumar | Revised and enlarge d edn. 2019, 6-6-19 | 252, Rs.225 | 978-93- 89051-08-7 | Charulatha Publishers |
| 7 | Fundamentals of Operational Amplifiers and Applications | Dr.K.R.Valluvan M.Vijayan P.Senthilkumar | 2020, 14-1-20 | 278, Rs.350 | 978-93- 897336-83-0 | Charulatha Publishers |
| 8 | Analog Electronics | Dr.K.R.Valluvan, K.S.Murugesan | 2023, August 2023 | | 978-81- 19056-91- 0 | Charulatha Publishers |

6.1. International Journal Publications :

Scopus ID : 26428598800

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Publons WoS ID : AAS-7473-2020

- [1] **K.R.Valluvan** A.M.Natarajan “Comparison of FFT and ADALINE Algorithms for Measurement of Current Harmonics Using Real-Time Data” GESTS Intl. J of Computer Science & Engg. Vol. 4 No.1, March 2008, pp. 43-52.
- [2] **K.R.Valluvan**, A.S.Kandasamy, A.M.Natarajan “A Survey of Voltage and Current Harmonics in Various Industries Connected to a State Electrical Grid” Intl. J of Applied Engg. Research Vol. 3 No.6, June 2008, pp. 801-816.

- [3] **K.R.Valluvan**, A.M.Natarajan " Implementation of ADALINE Algorithm on a FPGA for Computation of Total Harmonic Distortion of load current" Intl. J. on Automatic Control and Systems Engineering, ISSN 1687-4811, Volume 8, Issue II, December 2008, pp. 35-41.
- [4] K. Gomathi, S. Sellakumar and **K. R. Valluvan**, "Predictability and Control of Harmonics in PWM inverters using Back Propagation Network", CiiT International Journal of Artificial Intelligent Systems and Machine Learning, Print: ISSN 0974 – 9667 & Online: ISSN 0974 – 9543, November 2009, DOI: AIML112009006.
- [5] **K.R.Valluvan**, A.M.Natarajan, "Implementation of ADALINE on a DSP for Real-time Measurement of Current Harmonics" Int. J. Power Electronics, Inderscience, Vol.3, No.1, 2011, pp.65 -77. DOI -10.1504 / IJPELEC.2011.037334
- [6] **K.R.Valluvan**, D.Kalimani, "Reducing Electrical System Harmonics by Relocation of Power Factor Correction Capacitors" Journal of Electrical Engg., Vol.11, Jan., 2011, ed.1, pp. 93-102.
- [7] P.Tamilvani, **K.R.Valluvan**, "Hybrid Modulation Technique for Cascaded Multilevel Inverter for High Power and High Quality Applications in Renewable Energy Systems" International Journal of Electronic and Electrical Engineering, ISSN 0974-2174 Volume 5, Number 1 , 2012, pp. 59-68. Impact factor : 0.856.
- [8] A.Anna lakshmi, **K.R.Valluvan**, " A Survey of Algorithms for Defending MANETs against the DDoS Attacks" International Journal of Advanced Research in Computer Science and Software Engineering, ISSN: 2277 128X Volume 2, Issue 9, September 2012, pp.155-164.
- [9] N.Naveen, A.Annalakshmi, **K.R.Valluvan**, "A Cogitate study of IDS in MANET" International Journal of Computer Science and Information Technology & Security, ISSN: 2249-9555 Vol. 2, No.5, October 2012, pp. 944-950.
- [10] V.Gowri Prakash, **K.R.Valluvan**, "A Study on Multistage Cascading Classification for Digital Mammography" Int. J. of Information Technology and Computer Sciences Perspectives, ISSN (P) :2319-9016, Vol.2, No.1 , January –March 2013, pp.135-140
Annexure II, Impact factor- 2013: 5.058.
- [11] T.Santhanayaki, **K.R.Valluvan**, "Identification of Sags and Swells Using PIC Microcontroller", International Journal of scientific Research Engineering &Technology (IJSRET).Volume 1 , Issue 12, March 2013, pp. 11-16
- [12] G.Rajeshkumar, **K.R.Valluvan**, " A Comparative Study of Secure Intrusion Detection Systems for Discovering Malicious Nodes on MANETs", Int. J. of Computer Applications (0975-8887), Vol. 67, no.18, April 2013, pp. 1-5
- [13] G.Sudha, **K.R.Valluvan**, T. Basavaraju, " Fault Diagnosis of Transmission Lines with Rogowski Coils as Current Sensors", International Journal of Computer Applications (0975 – 8887) Volume 70– No.25, May 2013, pp. 19-25. *IF:0.821*
- [14] A.Annalakshmi, A.Anandakumar, G.Nagaraj, **K.R.Valluvan**, " Comparative Analysis of Architectures for Intrusion Detection Systems against DoS Attacks in MANETs based on Chi-Square Test", International Journal of Computer Applications (0975 – 8887) Volume 87 – No.4, February 2014, pp.27-33.
- [15] E.Haripriya, **K.R.Valluvan**, " A Survey and A Comparative Study of Multicast Routing Techniques in Disconnected ADHOC Networks " International Journal of Scientific Research Engineering & Technology (IJSRET), ISSN : 2278-0882,Volume 2 Issue 4,July 2013, pp 237-241, Impact factor 3.241 (PIF).

- [16] G.Rajeshkumar, **K.R.Valluvan**, "Performance Evaluation Of Dynamic Source Routing Under Black Hole Attack", Journal of Theoretical and Applied Information Technology, Vol. 66 No.1, pp- 290 to 297, August 2014, ISSN: 1992-8645
- [17] P.Tamilvani and **K.R.Valluvan**, " Harmonic Mitigation in Various Levels of Multilevel Inverter with Different Loads", International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, Vol. 2, Issue 9, September 2014, pp.1989-1996, ISSN(online) 2321-2004, ISSN(print):2321-5526
Impact factor 1.112
- [18] G.Sudha and **K.R.Valluvan**, " A Novel Approach to Fault Diagnosis of Transmission Line Using Rogowski Coil", International Review of Electrical Engineering, Vol.9, no.3, May-June 2014, pp-656 -662. Annexure-II, SJR-0.4, ICV: 17.21
- [19] V. Gowri, **K.R.Valluvan** "A Study on Image Classification Methods and Techniques for Improving Accuracy" International Journal of Advanced Research in Computer Engineering & Technology, ISSN 2278-1323, Volume 3, Number 1 , 2014, pp. 124-126. *Annexure II, Impact factor- 2013: 2.793.*
- [20] P.Tamilvani and **K.R.Valluvan**, "Comparative Analysis of THD for Various Levels of Multilevel Inverter with Different Loads" , International Journal of Applied Engineering Research, ISSN 0973-4562 Volume 9, Number 24 (2014) pp. 23967-23983, IF: 0.14
- [21] A.Anna lakshmi, **K.R.Valluvan**, " Support Vector Machine And Fuzzy Based Intrusion Detection And Prevention For Attacks In Manets" ,[International Journal of Mobile Network Design and Innovation](#), Volume 6 Issue 2, November 2015, pp. 1-10.
- [22] M. Kavitha, **K.R. Valluvan**, " Automatic Light Control System for Seminar Halls Using Fuzzy Logic ", CiiT International Journal of Fuzzy Systems, Print: ISSN 0974 – 9721 & Online: ISSN 0974 – 9608 , 2015 , pp. 35 -39
- [23] A.Anna Lakshmi and **K.R.Valluvan**, " Cluster based Secure Group Communication Model for MANET ", International Journal of Applied Engineering Research ISSN 0973-4562 Volume 10, Number 9 (2015), pp. 6820-6831.
- [24] S.Gopalakrishnan and **K.R.Valluvan**, " VLSI Implementation of Area Efficient Fast Parallel Fir Digital Filters Based On Fast Fir Algorithm ", IOSR Journal of VLSI and Signal Processing (IOSR-JVSP) Volume 5, Issue 2, Ver. II (Mar. - Apr. 2015), PP 10-20 e-ISSN: 2319 – 4200, p-ISSN No. : 2319 – 4197, DOI: 10.9790/4200- 05221020
- [25] K.Vanchinathan and **K.R Valluvan**, " Improvement of Time Response for Sensorless Control of BLDC Motor Drive Using Ant Colony Optimization Technique " , International Journal of Applied Engineering Research, ISSN 0973-4562 , Vol. 10 No.55 2015, pp. 3519 - 3524
- [26] E.Haripriya, K.R.Valluvan, "Survey of Routing Algorithms used in Delay Tolerant Networks", International Journal of Advanced and Innovative Research, ISSN 2278- 7844, Volume 4, Issue 11, November 2015, Impact factor 3.717.
- [27] E.Haripriya, K.R.Valluvan, "Performance Analysis of Multicast Routing in Mobile Social Networks", International Journal of Applied Engineering Research, ISSN 0973-4562 Volume 10, No.87, December 2015, Annexure II (2014 version).
- [28] P.Ragavi and K.R.Valluvan, "Monitoring of Hazardous Gases in Process Industries Through Internet ", International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol. 5, Issue 02, February-2016, pp. 742 – 747.

- [29] G Sudha and K.R. Valluvan, " High Frequency Modelling Of Smart Sensor For Precise Power Quality Assessment Using Fuzzy Logic", Journal of Circuits, Systems and Computers, ISSN: 0218- 1266 , Vol. 25, No. 6 , February 2016.pp.1650056-1 to 1650056-16 Annexure-I.
- [30] Divya.P and Valluvan.K.R, "Design Of Constant Multiplier Architecture For FIR Filter Based On Sub-Subtraction Algorithm", International Journal of Modern Trends in Engineering and Science, Volume 03 Issue 08, 2016, ISSN no: 2348-3121, pp. 18-21
- [31] G.Rajeshkumar & Dr.K.R.Valluvan "An Energy Aware Trust Based Intrusion Detection System with Adaptive Acknowledgement for Wireless Sensor Network" Wireless Personal Communications ISSN: 0929-6212 (Print) 1572-834X (Online) Publisher- Springer US DOI 10.1007/s11277-016-3349-y & pp 1-15, 04 May 2016.(Annexure-I)
- [32] V.Gowri and K.R.Valluvan, " Psychoanalysis Of Noise Detection Using Heterogeneous Low Frequency Filters", IJEST (ISSN 2455-8494) Vol.01, No.01 January 2016, pp.1-12
- [33] P. Tamilvani and K.R. Valluvan, "Modelling and Control of 27-Level Inverter Using unified Phase Shifted Modulation (UPPWM) for Power Systems", American-Eurasian Journal of Scientific Research 11 (2): pp. 125-134, 2016. ISSN 1818-6785 IDOSI Publications, 2016, DOI: 10.5829/idosi.aejr.2016.11.2.22771
- [34] E.Haripriya and K.R.Valluvan, "Enhanced Bio Inspired Multicast Routing for Delay Tolerant Networks", Asian Journal of Research in Social Sciences and Humanities, ISSN 2249-7315, vol. 6, no.8, August 2016, pp. 318 – 325, DOI NUMBER : 10.5958/2249-7315.2016.00612.2.
- [35] E. Haripriya and K. R. Valluvan, " Chief and Middle Multicast Routing Protocol for Delay Tolerant Networks", Asian Journal of Research in Social Sciences and Humanities Vol. 6, No. 9, September 2016, pp. 950-961. ISSN 2249-7315 DOI NUMBER: 10.5958/2249-7315.2016.00845.5 950
- [36] K. Vanchinathan and Dr. K. R. Valluvan, "A Study of Sensorless BLDC Motor Drives and Future Trends", Asian Journal of Research in Social Sciences and Humanities, Vol. 6, No. 9, September 2016, pp. 1863-1887, ISSN 2249-7315, DOI NUMBER: 10.5958/2249-7315.2016.00912.6
- [37] P. Tamilvani and K.R. Valluvan, "CLPWM: Carrier Level Shifted Pulse Width Modulation Based Multilevel Inverter Topology", Asian Journal of Research in Social Sciences and Humanities Vol. 6, Special conference Issue Sept 2016, pp. 14-22. ISSN 2249-7315 DOI Number: 10.5958/2249-7315.2016.00940.0, Impact factor 0.291
- [38] E. Haripriya and K. R. Valluvan, " Ant Colony Multicast Routing for Delay Tolerant Networks", Vol. 14, 2016 Special Issue International Journal of Computer Science and Information Security (IJCSIS), <https://sites.google.com/site/ijcsis/>, ISSN 1947-5500, pp.68-71.
- [39] A.Anna lakshmi, K.R.Valluvan, "Certificate Based Secure Communication Scheme for Cluster Based Architecture in MANET" , International Journal of Printing, Packaging & Allied Sciences, Vol. 4, No. 4, December 2016 ,pp. 2386-2397
- [40] N. Jayanthi and Dr. K. R. Valluvan, " A Review of Performance Metrics in Designing of Protocols for Wireless Sensor Networks ", Asian Journal of Research in Social Sciences and Humanities, Vol. 7, No. 1, January 2017, pp. 716-730. ISSN 2249-7315, DOI : 10.5958/2249-7315.2016.01404.
- [41] Tamilvani P,Valluvan K R (2017), "Extended Phase Opposition Disposition Pulse Width Modulation Technique for Cascaded 27-level Inverter," Journal of Computational and Theoretical Nanoscience, Volume 15, Number 2, February 2018, pp. 417-422(6) ISSN Number 1546-1955, Impact factor: 1.66 (**Annexure – I**)

- [42] Vanchinathan K and Dr Valluvan K R, " A Metaheuristic Optimization Approach for Tuning of Fractional-Order PID Controller for Speed Control of Sensorless BLDC Motor", Journal of Circuits, Systems, and Computers Vol. 27, No. 8 (July, 2018) 1850123 (19 pages), DOI: 10.1142/S0218126618501232, IF : 1.333
- [43] N. Jayanthi and K. R. Valluvan, "Hybrid routing algorithm for improving path selection in sustainable networks", **Cluster Computing**, The Journal of Networks, Software Tools and Applications, ISSN 1386-7857.DOI 10.1007/s10586-018-1903-y, published online 13th February 2018.Vol.22, pp.323-334(2019) , Annexure I . Impact Factor:2.78
- [44] V.Gowri, Dr.K.R.Valluvan and Dr.V.Vijaya Chamundeeswari, " A Novel Approach to Trace Accurate Skin Air Interface in Digital Mammography", TAGA Journal, vol.14, pp-1914-1920, February 2018, ISSN :1748-0345.
- [45] S. Dhivya , N. Jayanthi and Dr. K. R. Valluvan, "Enhancement of Dual-Hop Layered LEACH Routing Protocol with Mobility in Wireless Sensor Networks", International Journal of Scientific Engineering and Science, volume 2, Issue 3, pp. 46-50, 2018. ISSN (Online): 2456-736146.
- [46] Sruthi.M and Dr.K.R.Valluvan, "Patient Monitoring System using IoTs Connecting PHCS and District Hospitals", ,IJSRD - International Journal for Scientific Research & Development| Vol. 6, Issue 01, 2018, pp- 259-260 ; ISSN (online): 2321-0613.
- [47] N. Jayanthi and K. R. Valluvan, " Bio-inspired Optimization Routing Technique Using DNA Sequencing Algorithm for Wireless Sensor Networks", Wireless Personal Communication,
- [48] Vanchinathan K and Valluvan K R, " Tuning Of Fractional Order Proportional Integral Derivative Controller For Speed Control Of Sensorless BLDC Motor Using Artificial Bee Colony Optimization Technique", Lecture Notes in Electrical Engineering 446 - Selected Proceedings of ICIEES'17, Springer, ISSN 1876-1100 ISSN 1876-1119 (electronic), 2018, pp -117-127. <https://doi.org/10.1007/978-981-10-4852-4>
- [49] S.Chitra and K.R.Valluvan, "A Smart IOT System Based Measurement Of Power Quality Indices And Its Evaluation For A Multilevel Inverter ", Journal of Web Engineering, Vol. 17, No.6 (2018) 2579-2586
- [50] S.Chitra, K.R.Valluvan and P.Sathiamurthi, " Fuzzy Based Quasi Z-Source Inverter For Power Control Using Nano Structured Pt(Platinum) Thin Film Temperature Sensors", Sensor Letters, Vol.16, Number 11, November 2018, pp.827- 839, 2018
- [51] Gowri, V, Valluvan, KR & Vijaya Chamundeeswari, V, 2018,'A Novel Approach to Trace Accurate Skin Air Interface in Digital Mammograms', TAGA Journal of Graphic Technology, Volume 14, pp. 1914-1920, ISSN: 1748-0345.
- [52] Gowri, V, Valluvan, KR, Vijaya Chamundeeswari, V 2018,'Automated Detection and Classification of Microcalcification Clusters with Enhanced Preprocessing and Fractal Analysis', Asian Pacific Journal of Cancer Prevention, Volume 19, Issue 10, pp. 1914-1920, ISSN: 1513-7368.
- [53] S.Chitra, K.R.Valluvan, 2020, " Design and implementation of cascaded H-Bridge multilevel inverter using FPGA with multiple carrier phase disposition modulation scheme ", Microprocessors and Microsystems, 76 , July 2020 103108, Elsevier, ISSN: 0141-9331, Journal homepage: www.elsevier.com/locate/micropro
- [54] K. Vanchinathan, K. R. Valluvan, C. Gnanavel, C. Gokul, " Design Methodology And Experimental Verification of Intelligent Speed Controllers For Sensorless Permanent Magnet

Brushless DC Motor ", Intl J. on Electrical Energy Systems, 17 June 2021,
<https://doi.org/10.1002/2050-7038.12991>

- [55] K.Vanchinathan, K.R. Valluvan, C.Gnanavel, C.Gokul, R.A.Renold, " An Improved Incipient Whale Optimization Algorithm Based Robust Fault Detection And Diagnosis For Sensorless Brushless DC Motor Drive Under External Disturbances ", Int Trans Electr Energy Syst. 2021 , Wiley
- [56] P. Keerthana, K.R.Valluvan, M.Vijayan, " Measurement Of Harmonics With Adaline Using Half-Cycle Data ", International Journal of Scientific Research in Engineering and Management (IJSREM) Volume: 06 Issue: 05, May – 2022, DOI: 10.55041/IJSREM12697
- [57] K.Vanchinathan, K.R. Valluvan, C.Gnanavel, C.Gokul, (2022) "Numerical Simulation and Experimental Verification of Fractional-Order PI_L Controller for Solar PV Fed Sensorless Brushless DC Motor using Whale Optimization Algorithm ", Electric Power Components and Systems, DOI: 10.1080/15325008. 2022.2135644
- [58] Vanchinathan K, Valluvan K.R., Gnanavel C." Systematic Design of Multi-Objective Enhanced Genetic Algorithm Optimized Fractional Order PID Controller for Sensorless Brushless DC Motor Drive", Circuit world, Emerald Publisher, pp. 479 – 492.
- [59] Vanchinathan K, Valluvan K R, Gokul C, Gnanavel C, Padhmanabhaiyappan S and Neelam Sanjeev Kumar, " A review of integer order PID and fractional order PID controllers using optimization techniques for speed control of brushless DC motor drive", International Journal of System Assurance Engineering and Management, Springer, 7th June 2023, <https://doi.org/10.1007/s13198-023-01952->
- [60] Vanchinathan K, Valluvan K R, Gokul C. Gnanavel C, Padhmanabhaiyappan S, Neelam S K, "A review of integer order PID and fractional order PID controllers using optimization techniques for speed control of brushless DC motor drive", Int J Syst Assur Eng, Management, <https://doi.org/10.1007/s13198-023-01952-x>, June 7, 23

6.2. Conference Publications: National / International

- [1] **K.R.Valluvan** , A.S.Kandasamy and A.M.Natarajan "A Site Survey of Harmonics Generated By Typical Loads In Industries and Homes" Intl conf. on Resource Utilisation and Intelligent Systems, INCRUIS-2006 held at Kongu Engineering College, Perundurai on 4th-6th, January, 2006.
- [2] **K.R.Valluvan** and D.Ganeshkumar, "Low cost PC based Harmonic Analyser" Intl conf. on Resource Utilisation and Intelligent Systems, INCRUIS-2006 held at Kongu Engineering College, Perundurai on 4th-6th, January, 2006.
- [3] **K.R.Valluvan** , Dr.A.M.Natarajan and Dr.A.S.Kandasamy "Advantages of Power Quality Analysis in Manufacturing Industries – Case Studies" International Conference on Total Engineering , Analysis & Manufacturing Technologies held at Bangalore on Oct.4-6, 2007.
- [4] **K.R.Valluvan**, A.S.Kandasamy and A.M.Natarajan "On-Line Measurement of Current Harmonics Using ADALINE Algorithm" International Conference on Resource Utilization and Intelligent Systems held at Kongu Engineering College on Jan. 3-5,2008.
- [5] **K.R.Valluvan**, A.Vetrivel, A.M.Natarajan and Jovitha Jerome "Minimisation of Harmonics Amplification Due to Resonance by Relocation of Capacitors Using ADALINE on a DSP" Intl conf. on Computing Communication and Networking, ICCCN 2008 held at Chettinad College of Engineering Technology, Karur on Dec.18-20, 2008.
- [6] RT Selvi and **KR Valluvan**, " Development of low cost power parameter measuring system

using PIC” , Intl. Conf. On Control, Automation, Communication and Energy Conservation, . INCACEC, 2009

- [7] **K.R.Valluvan** and D.Kalimani, “Effective Use of LT PFC Capacitors in an Industry laden with Harmonic Currents – A case Study” 7th Intl. Seminar on Capacitors , CAPACIT 2010, held at IEEEEMA, India Mumbai India on 21-22, January, 2010.
- [8] **K.R.Valluvan**, A.Senthilkumar and P.Jayachandar “Embedded Controller for a Water Pumping System” 4th National Conference on Recent Trends in Electrical Technology held at Velalar College of Engineering & Technology, Erode, 17-3-12.
- [9] Naveen, N., A. Annalakshmi and **K.R. Valluvan**, “Trust node valuation and path reliability Technique for intrusion detection in MANET” Proceedings of the International Conference on Pattern Recognition, Informatics and Mobile Engineering, PRIME, Art. No. 6496716, pp: 468-472., 2013.
- [10] N.Naveen, A.Annalakshmi,K.R.Valluvan “Trust node valuation and path reliability technique for intrusion detection in MANET” Intl. conf. on Pattern Recognition Informatics and Mobile Engineering, Prime 2013 held at Periyar University on 21st-22nd February 2013.
- [11] A.Anna lakshmi, K.R.Valluvan, “Comparative Analysis of Performance for Generalized Intrusion Detection Systems and Fuzzy based Intrusion Detection System in MANET” National Conference on Latest Trends in Computing Environment, LATTICE '14 held at Velalar College Of Engineering And Technology, on 15th March 2014.
- [12] K. Vanchinathan and K.R. Valluvan, “Tuning of Fractional Order Proportional Integral Derivative Controller for Speed Control of Sensorless BLDC Motor using Artificial Bee Colony Optimization Technique”, Lecture Notes in Electrical Engineering, pp.117-127,Volume 446, Intelligent and Efficient Electrical Systems, Selected Proceedings of ICIEES', Springer ISSN 1876-1100 ISSN 1876-1119 (electronic)
- [13] K.R.Valluvan “IOT based Smart CommunicationnSystems For Accident Prevention ”, 7th Intl Conf on Engg. , Technology and Science, Muthayammal College of Engineering and Tech, 31-3-23

6.3. Co-authored conference papers:

| S. No. | Title | Conferences / Seminars | Held At | Date |
|--------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------|---------------|
| 1. | Congestion Control Techniques in ATM Networks using Neural Networks | National Conference on Signals, Systems and Security (NCOS 2002) | PSG College of Technology, Coimbatore | 01,02-03.2002 |
| 2. | Area Efficient VLSI Architecture for an adaptive predictor for VOCODER as a DSP Co Processor | National Conference on Modern Trends Electrical and Instrumentation Systems | GCT, Coimbatore | 14.3.2002 |
| 3. | Design of Active Filter using Sliding Mode Control for Harmonic Suppression in FACT | National Conference on Modern aspects of FACTS and its applications | KCT, Coimbatore | 29,30Aug 2003 |
| 4. | Design and Implementation of Digital FIR filter using FPGA | National Conference on Emerging Trends in Engineering Technology | Dr MGR Educational and Research Institute, Chennai | May 1-3, 2004 |

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| 5. | Implementation of Advanced Microcontroller Bus Architecture in FPGA , <i>D.Kavitha and K.R. Valluvan</i> | National Conference on Emerging Trends in Engineering Technology | Dr MGR Educational and Research Institute, Chennai | May 1-3, 2004 |
| 6. | Virtual Instrumentation Based Harmonic Analysis and Estimation of THD | National Conference on Recent Trends in Instrumentation Applications | National Engineering College, Kovilpatti, | 23 – 24, Dec'04 |
| 7. | Filtering of Low Amplitude Harmonic Content and THD Estimation Using Virtual Instrumentations Technique | National Conference on Power Engineering Practices and Energy Management | Thapar Institute of Engineering and Technology, Patiala, | 28 – 29, Jan'05. |
| 8. | Harmonic Filter Using FPGA | 2 nd National Conference on Modern Trends Electrical and Instrumentation Systems | GCT, Coimbatore | 9,10.3.2005 |
| 9. | Power Monitoring System | National Conference on VLSI, Embedded Systems, Signal Processing and Communication, VESCOM -2005 | Kongu Engineering College, Perundurai | 8 th April 2005. |
| 10. | Power Line Harmonic Distortion Meter Using An Embedded Controller | National conf. on Intelligent Integrated Control and Automation | Coimbatore Institute of Technology | Feb. 10-11' 2006. |
| 11. | Line Driver For Primary Multiplexer | National conf. on Intelligent Integrated Control and Automation | Coimbatore Institute of Technology, | Feb. 10-11, 2006. |
| 12. | Development of Ethernet Card Device Driver for ARM 9 in Embedded Linux | National Conference on Modern Trends in Electrical and Electronic Systems | Govt. College of Engineering , Salem | March 22 nd & 23 rd , 2006 |
| 13. | Active filter for Minimising Current Harmonics Generated in Non-Linear Loads Using DSP. | National Conference on VLSI, Embedded Systems, Signal Processing and Communication, VESCOM -2007 | Kongu Engineering College, Perundurai | April 2007 |
| 14. | Brain Computer Interface for Paralysed Patients to input phone Numbers | Nat. Conf. on Soft Computing Techniques in Process Control and Instrumentation | St. Peter's College of Engg., Chennai | Feb. 15-17, 2007, pp. 39-42 |
| 15. | In-Shoe Data Acquisition System for Diabetic Patients | Nat. Conf. on Soft Computing Techniques in Process Control & Instrumentation | St. Peter's College of Engg., Chennai | Feb. 15-17, 2007, pp. 55-58. |
| 16. | Energy Meter for An Electrical System with Harmonics | 4 th Nat. Conf. on Applications Of | Adhiyamaan College of | April 4-5, 2007 |

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|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------|
| | | Emerging Technologies | Engineering, Hosur | |
| 17. | Design of Microcontroller Interface for Audio-Codec | | V.L.B Janakiammal College of Engineering & Technology | Mar 23 rd & 24 th , 2007 |
| 18. | Pulse width Modulation inverter using a Neural Network Controller | Recent trends In Electrical Engineering", (RTEE-07) | K.S.R. College of Technology | 28 th -29 th March 2007 |
| 19. | High Speed Signal Acquisition System for DSP | Nat. Conf ETICSE 2008 | KSR CT | 20-2-2008 |
| 20. | Data Acquisition Using FPGA | Nat. Conf ETICSE '08 | KSR CT | 20-2-2008 |
| 21. | Development of low cost power parameter measuring system using PIC | Intl. C. On Control, Automation, Communication and Energy Conservation, 2009 | Kongu Engg. College | 4-6 June 2009 |
| 22. | Power factor Improvement Using Boost Converter topology | Nat. Conf. on Trends in Electronics, Instrumentation, Embedded System and Automation | Karunya University | 27 th March 2010 |
| 23. | A Simplified Algorithm for Shunt Active Filter Based on PIC Microcontroller | 2 nd Nat. Conf. on Control, Communication, Signal Processing & VLSI Techniques | The Oxford College of Engineering, Bangalore | 21,22 April 2010 |
| 24. | Development Of Animation Software For Classroom Teaching Of Power Quality Using Labview <i>Keerthana Suganthi.V, Jacob Samuel. J, Dr.K.R.Valluvan</i> | 4 th Nat.Conf. on Recent Trends in Electrical Technology | Velalar College of Engg. & Technology | 17-3-12 |
| 25. | Design And Development Of Data Acquisition System For Power System Monitoring Using Pic Microcontroller <i>Muthumohanraj.N. , K.R.Valluvan</i> | 4 th Nat.Conf. on Recent Trends in Electrical Technology | Velalar College of Engg. & Technology | 17-3-12 |
| 26. | A review of Performance Metrics in Wireless Sensor Networks, <i>N.Jayanthi, K.R.Valluvan</i> | 2 nd NatConf. On Smart Systems | EBET | 17-3-12 |
| 27. | Identification of Sags and Swells Using PIC Microcontroller <i>T.Sanathanayaki, K.R.Valluvan</i> | 5 th National Conf. on EVENTS '13 | VCET | 16-3-13 |
| 28. | VLSI Implementation of Power Efficient Reconfigurable Carry Save Adder <i>L.Gopalakrishnan, K.R.Valluvan</i> | 5 th National Conf. on EVENTS '13 | VCET | 16-3-13 |
| 29. | Area Efficient Fast Parallel FIR Digital Filters Based on Fast FIR Algorithm <i>L.Gopalakrishnan, K.R.Valluvan</i> | 4 th Nat. conf. on Control and Power Engg., Hindustan College of Engg and Tech., Coimbatore | | |

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|-----|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------|---------------|
| 30. | Trust node valuation and path reliability technique for intrusion detection in MANET <i>Naveen, N., Annalakshmi, A., Valluvan, K.R.</i> | International Conference , 21-22 Feb. 2013, pp. 468 – 472 | | |
| 31. | Monitoring of Hazardous Gases in Process Industries Through Internet , <i>P.Ragavi, Dr.K.R. Valluvan</i> | National Conference on Wireless Communication Systems '16 ISBN NO. 978-93-85100-27-7 | MITs | 27, 28 - 1-16 |
| 32. | Low cost Harmonic Measurement Using Arduino Uno <i>J.Sruthi and K.R.Valluvan</i> | 11 th NatConf on Trends in Engineering Applications, NCTEA '19 | VCET | 2-3-19 |
| 33. | Harmonic Measurement and Frequency Analysis <i>J.Sruthi and K.R.Valluvan</i> | Intl C. on Information Sciences and Renewable Ener3gy Sources | Selvam College of Technology | 7,8 -3-19 |
| 34. | Measurement of Harmonics with ADALINE using Half cycle Data P.Keerthana, K. R. Valluvan | Conf on Trends in Engg, Applications NCTEA'22 | VCET | 6-5-22 |

6.4. Patents / copyrights

6.4.a. Patents

| S No | Applicant(s) | Title of the invention | Date of filing | Date of Publication | Patent No |
|------|------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------|---------------------|-------------------------------------|
| 1 | P.Tamilvani, K.R.Valluvan | Harmonics minimization by Cascaded Multilevel Inverter | 01-11-2018 | 09-11-18 | Application No.201841041373 Applied |
| 2 | Dr.S.Chitra Dr.K.R.Valluvan Dr.P. Sathyamurthi | Cloud based Data Acquisition in Multi-Level Inverters for Electric Power Quality Analysis | 31-12-2020 | 08-01-21 | Application No 202041057391 |

6.4.b. Copyrights

| No | Title of the Copyright | Applicant(s) | Date of Dispatch | Regn. No. |
|----|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------|-----------------------|
| 1. | A Metric Balancing Policy design For Wireless Sensor Networks Deployment Using Simulation Software | N.Jayanthi, Dr.K.R.Valluvan | 13.02.18 | SW-10845 /2018 |
| 2 | Modified Genetic Algorithm Optimized Fractional order PID Controller For Sensorless Speed Control of BLDC motors Using MATLAB software | Dr.K.R.Valluvan | 26.02.18 | SW-11398 /2018 |
| 3 | Multiplication of binary Numbers using hybrid Vedic Multiplier using Nikhilam sutra and Karatsuba Algorithm with Reduction in N-1bits | M.NishaAngeline Dr.S.K.Manikandan Dr.K.R.Valluvan K.Rajaram | 03.04.18 | SW-10677 /2018 |
| 4 | NOR based Architecture for Data Matching encoded with Error Correcting | M.Parimaladevi G.Boopathiraja | 30.9.20 | SW-13738/2020 |

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|--|-----------------------|-----------------------------------------------------------------------------------|--|--|
| | Codes in Cache memory | V.Gowrishankar Dr.P.Brindha T.Sathya Dr.K.R.Valluvan M.Vijayan | | |
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7. a. Funded Research

Principal Investigator of an AICTE-RPS funded research titled **“An Investigation Of Thermal Resistivities Of Soil Profile For The Installation Of UG LT/HT Cables And Oil / Gas Pipelines In Smart Cities”** with an AICTE Grant of ₹ 3,74,509/= ; project duration -10-01-2020 to 10-02-2023 (3 years)

7.b.Sponsored Research activities:

| S. No. | Year | Organisation | Project Title | Amount Received |
|--------|---------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------|
| 1 | 1997-98 | Tamilnadu State Council for Science and Technology (TNSCST) Student Project Scheme | AI Based Soil Analyser | Rs.5,000 |
| 2 | 1998-99 | | Fuel Optimiser for Boilers | Rs.5,000 |
| 3 | 2000-01 | | Energy Efficient variable Drive for Industrial AC motors | Rs.5,000 |
| 7 | 2001-02 | | Low cost starter / protector for Agricultural pump set motors | Rs.5,000 |
| 8 | 2006-07 | Institution of Engineers | Active Filter for Minimising Current Harmonics in Non-linear Loads | Rs.10,000 |
| 9 | 2008-09 | NLC-KEC Collaboration | Power Factor Measurement | Rs.20,000 |
| 10 | 2011-12 | TNSCST | Low Cost Solar Powered Micropump For Rural and Small Houses | Rs.6,000 |
| 11 | 2019-20 | TNSCST | Low Cost Sanitary Napkin incinerator for rural and semi urban Educational Institutions | ₹7,500 |

8. Consultancy activities:

| S. No | Yr | Name Of The Industry | Details Of Consultancy |
|-------|---------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 1. | 2003-04 | Karthikeya Papers & Boards Ltd, Sathyamangalam | Energy Audit |
| 2. | | Mehala Carona Textiles (P) Ltd | Energy Audit |
| 3. | | Amsam Spinning Mills (P) Ltd, Punjai Puliampatti | Energy Audit |
| 4. | | ELGI Equipments, Coimbatore | Lightning Protection to Radio tower, telecommunication and data circuits and averting failures of modems, servers, EPABX and computers |
| 5. | | Bimetal Bearings Ltd, Coimbatore | Power Quality Analysis and Harmonic Study |
| 6. | | Ramakrishna Mission Vidyalaya, Coimbatore | Energy Study |
| 7. | | Sakthi Sugars Ltd, Sakthinagar, Erode (Dt) | Power Quality Analysis and Harmonic Study |
| 8. | 2020 | Unity Electrosystems (P), Coimbatore | Remedial measures to mitigate the effects of lightning surges |

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| 9. | | Mothi Spinner Ltd, Tiruchengode | Energy Audit |
| 10. | | Dharmapuri Paper & Boards Ltd, Dharmapuri | Energy Audit |
| 11. | | Venbro Polymers, Erode | Measurement of energy parameters |
| 12. | | Shakthi Knitting Ltd, Perundurai | Energy Audit |
| 13. | | R. G. Sundar & Co., Erode | Energy Study |
| 14. | | Kovai Maruthi Paper & Boards Ltd, Namakkal | Power Quality Analysis and Harmonics Study |
| 15. | | PePe Farms, Namakkal | Water Treatment and Energy Conservation Methods |
| 16. | | Venbro Polymers , Erode | Power Quality Study |
| 17. | | SISCOL, Mettur | Power Quality Study |
| 18. | | City Mills (P) Ltd. Erode | Power Quality Assurance |
| 19. | | TNEB | Harmonics Studies |
| 20. | 2005-06 | Maharaja Sathyam Industries (P) Ltd. | Energy Audit |
| 21. | | Sri Ratna Lakshmi Spinning Mills | Energy Audit |
| 22. | | Subburaj Textile Mills, Tirunelveli | Energy Audit |
| 23. | | Neyveli Lignite Corporation | NLC-KEC Collaborative Project – Harmonic Study at Thermal Station –I, Mines – I and NLC Township |
| 24. | | Sun Plastics, PG Palayam | Energy Studies |
| 25. | 06-07 | Salem District Co-operative Sugar Mills, Mohanur | Design of TIP and Loading point sugar bag Counters |
| 26. | | Poppys Knitwear (P) Ltd., Tiruppur | Insulation Integrity Check |
| 27. | 2007-08 | Poppys Knitwear (P) Ltd., Netaji Apparel Park – Plot 1 & Plot 26 | Insulation Integrity Check |
| 28. | | Prism Textile Processing Mills (P) Ltd | Earth Resistance Measurement |
| 29. | | SKM Egg products India | Sump Automation through GSM network |
| 30. | | SKM Egg products India | Energy Audit |
| 31. | | Neyveli Lignite Corporation | NLC-KEC Collaborative Project – PF Measurement in Mines II |
| 32. | | Siemens @ NLC, Neyveli | Harmonics Measurement in 5 Drive Head Stations at low loads in Mines II |
| 33. | | Siemens @ NLC, Neyveli | Harmonics Measurement in 5 Drive Head Stations at full load in Mines II |
| 34. | 2008-09 | Hashprompt Logistics Management India (P) Ltd, Erode | Classification of a Product |
| 35. | | Neyveli Lignite Corporation | Studies on PF improvement in mines area |
| 36. | 2009-10 | Mahindra Water Utilities, Tiruppur | Measurement of Harmonics in pumping station. |
| 37. | 2014-15 | Robert Bosch Engg. & Business Solutions, Coimbatore | Training on Circuit Theory and OpAmp interfacing |

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| 38. | | Design and Supply of relevant Technical details and Drawings for an Automatic Temperature and Humidity Controller | Thumba Agrotechnologies, Palani |
| 39. | 2016-17 | Consultancy for Improving Earthing System in a wind Electric Generation Farm. | Intech Power Kovai (P) Ltd, Dharapuram |
| 40. | 2020-21 | Framing and Submission of Draft State Level Regulations For Current Harmonics Control in grid connected systems | Tamilnadu Electricity Regulatory Commission |
| 41. | 2021-22 | Framing and Submission of Draft State Level Regulations For Current Harmonics Control in Grid connected WEG, SPV Farms, Bagasse and Biomass based Generators | Tamilnadu Electricity Regulatory Commission |
| 42. | 2021-22 | Measurement of Inrush current in Municipality Water Treatment Plant for validation of Soft starters | Gobichettipalayam Municipal Administration |
| 43. | 2022-23 | Measurement of Harmonics | Ferrous Alloyes, Coimbatore |
| 44. | 2022-23 | Measurement of Harmonics | Sri JayaMaaruthi Yarn India Pvt. Ltd |

9. a) Resource Person / Technical Lectures delivered:

| Sl. No | Date | Venue / Target Audience | Title |
|--------|----------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 | 23-4-02 | Institution of Engineers, Salem Local center, SAIL- SSP | The World of Internet |
| 2 | 27-7-03 | Kumaraguru College of Technology, Coimbatore | Energy Audit- A Case Study |
| 3 | 3-12-04 | STTP on Fuzzy-Neural Networks, Kongu Engg College | 1. Fuzzy Mindset 2. Fuzzy in Real Life |
| 4 | 20-6-05 | TamilNadu Electricity Board, Erode Distribution Circle | Measurement of Harmonics in Different Industries |
| 5 | 8-9-05 | Tamilnadu Electricity Regulatory Commission, Chennai | Harmonics – Sources, Effects, Standards, Mitigation and Levels Measured in industries |
| 6 | 21-7-06 | AICTE sponsored National Seminar on “Advanced Power Converters For Special Electrical Drives” , EEE Dept, KEC | Harmonics in the Power Systems due to Electrical Drives and Mitigating Techniques |
| 7 | 18-11-06 | CSIR sponsored Seminar on Neuro-Fuzzy Modeling to Process Control, EIE Dept., KEC | Real Life Applications of Neuro-Fuzzy Techniques |
| 8 | 4-6-07 | AICTE sponsored STPP on Custom Computing | ASIC Design Flow |
| 9 | 14-2-08 | CSIR sponsored National Seminar on Health Monitoring of Structures | Smart Buildings |

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| 10 | 12-3-08 | Institution of Engineers, NLC & Scientists and Engineers Association, NLC | Harmonics-An Electrical Pollutant: Sources, Effects and Remedy |
| 11 | 5-5-08 | AICTE-ISTE STTP on Soft Computing Techniques for Power Quality Improvement at KEC | Soft Computing Techniques for Power Quality Improvement – An overview |
| 12 | 7-5-08 | AICTE-ISTE STTP on Soft Computing Techniques for Power Quality Improvement at KEC | Fuzzy mindset |
| 13 | 7-5-08 | AICTE-ISTE STTP on Soft Computing Techniques for Power Quality Improvement at KEC | Implementation of ANN on a DSP |
| 14 | 14-11-08 | Workshop on Digital Variable Speed Drives at EEE, KEC | VSDs in Electrical Energy Management |
| 15 | 07-12-09 | Seminar on Industrial Automation Using PLCs and DCS, Dept. of EIE, KEC | Selection of PLC and Interfacing Considerations |
| 16 | 26-08-10 | MoEF sponsored Nat. sem. On Eco Friendly Automated Vehicles Powering the Green Revolution, Dept. of Mechatronics, KSRCT | Energy Conservation and Its Implications on Environment |
| 17 | 9-9-10 | Paavai Engineering College | Advanced Computer Architecture |
| 18 | 27-9-10 | Builders Association of India, Erode Centre | Energy Conservation Act and Energy Conservation Building Code |
| 19 | 21-11-10 | Builder's Voice, Tiruchy Technical Seminar-2010 | Energy Efficient Buildings |
| 20 | 5-3-11 | Nat. conf. on Recent Trends and Advances in Information Technology, KSR College of Technology | Fuzzy mindset |
| 21 | 13-07-11 | Inaugural Function IT Association, KSR College of Technology | Recent Trends in Computer Architecture |
| 22 | 4-8-11 | National Conf. on Recent Trends in Electrical Engg. At IRTT | Power Quality and Harmonics |
| 23 | 15-9-11 | National Level workshop at Sri Ramanathan College of Engg. | Career Perspectives for VLSI Engineers |
| 24 | 16-2-12 | Erode Sengunthar Engg. College | Measurement of PQ Parameters Using DSP Instrument |
| 25 | 27-2-12 | Francis Xavier Engg. College | IEEE Guest Lecture on FL and its Applications in Medicine |
| 26 | 5-3-12 | Velalar College For Women, Dept. of Physics | Energy Conservation And Environmental Effects |
| 27 | 15-5-13 | AICTE sponsored FDP on "Real Time Applications in Embedded Systems", Nandha Engineering College | Embedded Controller for a Water Pumping System – A case Study |
| 28 | 14-6-13 | AICTE sponsored FDP on Recent Trends in Automotive Electronics, IRTT | Automotive Electronics |
| 29 | 1-8-13 | Assn. of ECE, JayShriram Group of Institutions | Energy Conservation By EC Engineers |

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| 30 | 3-5-10-13 | SaintGits Inst. Mgt, Kottayam | Resource Person the 3Day workshop for NBA Resource Persons / Evaluators |
| 31 | 5-10-13 | Assn. of PG –MTech (Power Systems) , Saintgits College of Engg , Kottayam | Power Quality –Issues, Measurements and Standards from the User and Utility Purview |
| 32 | 11-10-13 | AICTE sponsored Nat. Seminar on Emerging Trends in Embedded Systems and Applications at Excel College of Technology | Embedded System – A case Study |
| 33 | 23-11-13 | VCET- Faculty Orientation Programme | Handling of Laboratory classes Effectively – Class room etiquettes : Some Do's and Don'ts |
| 34 | 28-12-13 | National Seminar on Avenues of Research | E Tools For Research |
| 35 | 1-2-14 | IETE sponsored workshop on Algorithmic Approach to Image and Video processing | Research Issues in Image & Video Processing |
| 36 | 5-3-14 | Bannari Amman Institute of Technology | 1 Day NBA workshop on “ Training of Evaluators / Resource Persons on Outcome Based Accreditation” |
| 37 | 14,15,16-3-14 | Bannari Amman Institute of Technology | 3 Day NBA workshop on “ Training of Evaluators / Resource Persons on Outcome Based Accreditation” |
| 38 | | | |
| 39 | 12-6-14 | VCET- Faculty Empowerment Programme | Handling of Laboratory classes Effectively – Class room etiquettes : Some Do's and Don'ts |
| 40 | 16-6-14 | Ranganathan Engineering College, Coimbatore | Outcome Based Accreditation |
| 41 | 18-6-14 | VCET- Faculty Orientation Programme | Class room Etiquettes : Some Dos and Dons |
| 42 | 20-6-14 | VCET-AU approved FDTP- Analog and Digital Communication | Noise |
| 43 | 21-6-14 | Erode Sengunthar Engg. College - FDP on Embedded Systems | 8085,8051 and Interfacing Techniques |
| 44 | 25-6-14 | Inaugural Function of Cyber Crews -Association of Computer Science , Kongu Arts & Science College . | Evolution of Computers - Charles to Chitti |
| 45 | 23-9-14 | IETE sponsored work shop in Avenues of Research in ICE Domain | Research Avenues in Soft Computing and Power Quality |
| 46 | 26-11-14 | 5-Day FDP on Microprocessor and Microcontroller, ECE, VCET, 24-28-11-12 | Memory and I/O interfacing with 8086 |
| 47 | 29-11-14 | One day Research Seminar on “Enhancing Research Potential In CSE&IT”, CSE&IT, VCET | Research Resources |
| 48 | 5-12-14 | 2 Day Nat. workshop “ A Step For NBA Accreditation ” , SNS College of Tech., Coimbatore | Chief Guest for Inauguration; “ Part B- cri I- Vision, Mission, PEOs” |
| 49 | 13-12-14 | 7Day AU approved FDTP – Probability and Random | Engineering Applications of Auto , Cross correlation and Spectral Density |

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| | | Processes - VCET | |
| 50 | 19-12-14 | 7Day AU Approved FDP – Electronic Circuits II | Wave Shaping and Multivibrator Circuits |
| 51 | 28-1-15 | 1Day workshop @ VCET on “PG Project- An overview” | Abstract Writing , Objectives and Project Report Formatting |
| 52 | 29-1-15 | 1 Day Workshop on VLSI Design Tools @ PSNA College of Technology, Dindigul | Introduction to VLSI Design Tools |
| 53 | 17-6-15 | 5-Day ISTE sponsored FDTP on Digital Principles & Design Using Verilog HDL, Dept. of ECE, VCET | TTL and CMOS Characteristics |
| 54 | 16-6-15 | AU approved 1Week FDTP on EE 6302- Electromagnetic Theory, Dept. of EEE, VCET | Applications of Electromagnetic Waves |
| 55 | 17-6-15 | Faculty Orientation Programme, VCET | Class room Etiquettes : Some Dos and Don'ts |
| 56 | 22-7-15 | Faculty Lecture Series, VCET | Energy Conservation @ Homes and Offices |
| 57 | 19-8-15 | 1 Day workshop on “Project & Research Work – An overview” | Writing Abstract, Objectives , Introduction and Project Report Preparation |
| 58 | 14-11-15 | IETE sponsored 1Day workshop on Spectrum Analysers and Digital Storage Oscilloscopes | Hands on training on DSOs & Spectrum Analyser to ECE & EEE Faculty. |
| 59 | 17-6-15 | IETE sponsored FDTP on TLW | Overview of TLW |
| 60 | 17-12-15 | FDP on Embedded Systems | RTOS Based ES |
| 61 | 24-8-16 | 1Day workshop-PG Project& Research work-An overview-VCET | Writing Abstract, Objectives, Introduction and Project Report Preparation |
| 62 | 10-9-16 | IEEE student Members Meet - EMBS | Energy Conservation and Its Effect on Environment |
| 63 | 25-11-16 | AU approved 7day FDTP on EC 6019-Data Converters, Sengunthar Engg. College, Tiruchengode | Unit 1- Sample and Hold circuits |
| 64 | 3-12-16 | FDTP on Medical Electronics, Dept. of BME, VCET | Measurements Of Non-Electrical Parameters |
| 65 | 3-12-16 | 2 Day Hands on Training on Applications of Finite Element Analysis, Dept. of Mech Engg., VCET | MATLAB for Mechanical Engineers |
| 66 | 05-12-16 | 7-Day AU FDTP on Wireless Networks, Dept. of ECE | IEEE802.11 |
| 67 | 30-06-17 | CSIR Sponsored Seminar , Optimisation of Industrial Processes, PA College of Engg. & Technology, Pollachi | Fuzzy Optimisation |
| 68 | 16-02-17 | ICMR Sponsored Seminar on Nanorobots: An Ultimate Transition in Medical Era For Guarding Against Infections, PA College of Engg. & Technology, Pollachi | Evolution of Nanobots-From Feynman's Days. |
| 69 | 01-02-18 | TNSCST sponsored DST Supported An awareness Programme for Energy Conservation | Selection, Maintenance and Simple Servicing of Domestic Electrical Appliances |

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| 70 | 15-08-18 | SHRISHTI 2018 Science Exhibition at Indian Public School Erode | Guest Judge |
| 71 | 01-12-18 | 14Days-AU FDTP on CS-8491 Computer Architecture at SNS CE, Coimbatore | Basics of Computer Architecture |
| 71 | 27-12-18 | NAAC sponsored 2Day seminar “ Innovative Strategies to Enhance Teaching Learning Process” , PA College of Technology, Pollachi. | Inauguration Speech and a tech. session on “ Innovative Strategies to Enhance Teaching Learning Process ” |
| 72 | 22-5-19 | AICTE sponsored STTP on “ Professional Development of Educators in Teaching Pedagogy- A learning & Research Design ” , Nandha Engg. College, Perundurai. | “Teaching pedagogy – A student centric approach” |
| 73 | 01-07-19 | AICTE Sponsored STTP on Pedagogy on Emotional Intelligence Skills For Career Growth And Success , Dept. of Mgt. Studies, VCET | “Emotional Intelligence in Today’s Workplace” |
| 74 | 28-11-19 | AICTE sponsored STTP on Design and Development of Engg. Applications Using FOSS | Arduino Platform – Software and Hardware |
| 75 | 30-11-19 | Anna University sponsored FDTP on EE8451 – Linear Integrated Circuits and Applications, Bannari Amman Institute of Technology | Fundamentals of Opamps |
| 76 | 3-12-19 | AICTE sponsored FDP on Recent Trends in Driverless Electric Vehicle Technologies , IRTT | Driverless Cars- A conceptual Overview |
| 77 | Jan., 20 | VCET Internal Hackathon for Smart India Hackathon 2020 | Internal Jury |
| 78 | 1-8-20 | AICTE Margdarshan – Faculty Development Programme Rajalakshmi Engineering College “Guided Walkthrough to NBA – SAR” | Institutional Governance & Financial Resources |
| 79 | 20-8-20 | AICTE sponsored 1 week online STTP on Effective and Innovative Teaching, Best Practices and Learning Strategies | A Paradigm Shift In Pedagogy With Contemporary Students’ Mileau |
| 80 | 23-9-20 | AICTE sponsored 1 week online STTP on Effective and Innovative Teaching, Best Practices and Learning Strategies | A Paradigm Shift In Pedagogy With Contemporary Students’ Milieu – After COVID 19 |

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| 81 | 15-10-20 | AICTE - AQIS sponsored STTP on "Integration of Renewable Energy and Big Data Analytics of Smart Grid, EEE Dept, PA College of Technology. | Power Quality Issues in Integration of Renewable Energy Sources to Utility Grids |
| 82 | 21-10-20 | AICTE sponsored 1 week online STTP on Effective and Innovative Teaching, Best Practices and Learning Strategies | A Paradigm Shift In Pedagogy With Contemporary Students' Milieu – National education Policy 2020 |
| 83 | 04-11-20 | AICTE - AQIS sponsored STTP on "Integration of Renewable Energy and Big Data Analytics of Smart Grid, EEE Dept, PA College of Technology | Power Quality Issues in Integration of Renewable Energy Sources to Utility Grids |
| 84 | 18-11-20 | AICTE - AQIS sponsored STTP on "Integration of Renewable Energy and Big Data Analytics of Smart Grid, EEE Dept. PA College of Technology. | Power Quality Issues in Integration of Renewable Energy Sources to Utility Grids |
| 85 | 23-12-20 | SASTRA Deemed to be University, FDP under Margdarshan Scheme | Traditional And Alternate Assessment For Improving The Average Performance Of Students |
| 86 | 17-11-21 | AICTE – ATAL FDP on "Renewable Energy Integration using AI and Big Data Analytics", EEE Dept. PA College of Technology. | Power Quality Issues in Integration of Renewable Energy Sources to Utility Grids |
| 87 | 26-09-22 | Evaluation and Assessment Using Bloom's Taxonomy at IQAC, VET IAS | |
| 88 | 14-12-22 | VCET-Green Club-Energy Conservation Day | Energy Conservation and its implications |
| 89 | 18-12-23 | TANGEDCO and VCET | Energy Conservation in Homes and Scools/ Colleges |
| 90 | 08-01-23 | CSIR sponsored 1 Day Seminar on V2G Technology for Sustainable Development | PQ issues in EV charging |

9.b. Technical Sessions Chaired:

| Sl. No | Date | Venue | Name of the Conference |
|--------|---------|----------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1 | 10-3-12 | Al-Ameen Engg. College | 1 st National Conf. on Advances in Computing, Control, Communication, Automation and Structural Engg. |
| 2 | 21-3-14 | Maharaja College of Engg. & Tech | Nat. Conf,. on Recent Trends in Information, Communication and Power Systems |
| | | | |

9.c. Member of Advisory Committee in :

| Sl. No | Date | Venue | Name of the Conference |
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| 1 | 10-3-12 | Al-Ameen Engg. College | 1 st National Conf. on Advances in Computing ,Control, Communication, Automation and Structural Engg. |
| 2 | 20-3-14 | Sasurie | |
| 3 | 29-3-14 | Al-Ameen Engg. College | 2 nd National Conf. on Advances in Computing, Control, Communication, Automation and Structural Engg. |
| 4 | 28-3-20 | Al-Ameen Engg. College | 9 th National Conf. on Advanced Sciences and Engineering Research |

9.d. Reviewership

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|---|------------------------------------------------------------------------------------|
| 1 | McGraw Hill, one chapter of Electronic Devices and Circuits, 4e |
| 2 | Springer, “ A Virtual Instrumentation based Analysis – An Experimental Approach ” |
| 3 | Conf - ICAST 2018 - Track 4 Recent Advances in Electrical and Computer Engineering |
| 4 | Conf - ICAST 2020 - Track 4 Recent Advances in Electrical and Computer Engineering |
| 5 | Intl J of Microprocessors and Microsystems |
| 6 | Intl J of Expert Systems with Applications |
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9.e. Online Lectures (through You tube)\

| S.No | Date | Title | Organiser | Link |
|------|----------|----------------------------------------|-------------------|------|
| 1 | 28-02-21 | Smart Engineers Make the world Smarter | Pantech Solutions | |
| | | | | |

10. Membership of Scientific and Professional Societies:

- Life Member, ISTE (LM 27847, since 5-11-99)
- IEEE Member No: 92135852 (Since Nov. 2011)
- FELLOW of The Institution of Engineers (India) – F1207063 – since 16-2-16

11. Honours and Awards:

1. BEST TEACHER AWARD in EEE dept. (KEC) for the year 1997-98
2. BEST TEACHER AWARD in EEE dept. (KEC) for the year 1999-00
3. BEST TEACHER AWARD in EEE dept. (KEC) for the year 2001-02
4. Honored with Shawl and Book on Engineers' Day by Secretary, VCET on 15-9-14.
5. For Best Project Guidance : awarded by The Institution of Engineers(India) Students' Chapter – Tamilnadu State Centre – 7-3-05
6. **Certificate of Achievement- Best Engineer Award** in Electronics and Telecommunication Engg. Division by Institution of Engineers (India) Erode Local Centre on 18-10-19.

12. No. of Ph.D.s guided: 10 = 9 +1 (as Joint supervisor) .

| S. No, | Scholar | Register No | Completion | viva voce on | Title of the thesis |
|--------|----------------|-------------|------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | G.Rajesh Kumar | 71030921013 | Apr,2017 | 13-04-17 | An enhanced Optimization Technique for Wireless Networks with Improved Quality of Service Using Trust Based Adaptive Acknowledgement Scheme |
| 2 | G.Sudha | L1090043059 | Dec,2017 | 11-12-17 | Power Quality Assessment and Fault Diagnosis of Transmission Lines Using Rogowski Coils |
| 3 | E.Haripriya | 71130632016 | Nov,2018 | 16-11-18 | An Investigation on Improvement in Performance of Delay Tolerant Networks Using Multicasting Techniques |
| 4 | A.Anna Lakshmi | 11130632002 | Aug,2019 | 30-08-19 | Cluster Based Communication With Secured |

| | | | | | |
|----|-----------------------------------------|-------------|-----------|----------|---------------------------------------------------------------------------------------------------------------------|
| | | | | | Intrusion Detection and Prevention Techniques In MANETs |
| 5 | P.Tamilvani | 11110432033 | Sep, 2019 | 20-09-19 | Modeling And Analysis of 27-Level cascaded Multilevel Inverter Using Pulse Width Modulation Technique |
| 6 | N.Jayanthi, | 11230632011 | Nov,2019 | 27-11-19 | Certain Studies on Intelligent Hybrid Approach to Improve the Performance of Wireless Sensor Networks |
| 7 | K.Vanchinathan | 1313369124 | Dec,2019 | 24-12-19 | Studies on Performance Improvement of Sensorless Speed Control of BLDC motors Using Fractional order PID Controller |
| 8 | V.Gowri, | 11160632009 | Jan, 2020 | 10.01.20 | Improvement in Image Segmentation Analysis In Digital Mammography |
| 9 | S.Chitra | 71130432002 | Nov,2020 | 09-11-20 | Internet of Things Based Monitoring of Total Harmonic Distortion in A |
| 10 | L.M.Palanivelu (As Joint Supervisor) | 4083053120 | Aug,2014 | 28-08-14 | Certain Improvements in Image Compression For Multi-Application Smart Card Storage and Retrieval |

13. No. of M.E. / M. Tech projects guided: 49

14. List of STTPs / FDPs / Workshops / Seminars / Conferences organized :

| S No | Programme | Duration | Target Audience | Conducted By |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------|-----------------------------|
| 1. | AICTE - STTP - Recent Trends in Electrical Systems– Metering & Protection | 2 weeks (26.6. 02 to 18.7.02) | Faculty of Degree level Institutions | Dept. of EEE, KEC |
| 2. | Operation & Maintenance of Distribution Transformer | 1 day, 15-12-2002 | Practicing Engineers of Industry | Dept. of EEE, KEC |
| 3. | Operation & Maintenance of Distribution Transformer | 1 day, 23-1-2003 | Engineers of TNEB | Dept. of EEE, KEC |
| 4. | Operation & Maintenance of Distribution Transformer | 1 day, 6-7-2003 | Practicing Engineers of Industry | Dept. of EEE, KEC |
| 5. | Operation & Maintenance of Distribution Transformer | 1 day , 26-7-2003 | Engineers of TNEB | Dept. of EEE, KEC |
| 6. | Operation & Maintenance of Distribution Transformer | 1 day, 17-7-2004 | Engineers of TNEB | Dept. of EEE, KEC |
| 7. | AICTE-ISTE STTP on Soft Computing Techniques for Power Quality Improvement | 5 days, 5-5-08 to 9-5-08 | Faculty of Degree level Institutions | Dept. of ECE(PG) and IT,KEC |
| 8. | 4 th Nat. Conf. on Recent Trends in Electrical Technology | 17-3-12 | Nat. Conf | VCET |
| 9. | 5 th Nat. Conf. on EVENTS | xx-3-13 | Nat. Conf | VCET |
| 10. | Workshop on Mathematical Transforms, Operators and MATLAB Tools in Image Processing | | Faculty, PG and UG students | VCET |
| 11. | 6 th Nat. Conf. on EVENTS | 15-3-14 | Nat. Conf | VCET |
| 12. | 7 th Nat. Conf. on EVENTS | | Nat. Conf | VCET |
| 13. | Anna University 7- Day FDTP on EC 6602-Antenna and Wave Propagation | 16-12-15 to 22-12-15 | FDTP | AU, VCET |
| 14. | TNSCST sponsored 3DayAwareness Creation Program for Women on “Selection, Maintenance and Simple Servicing of Domestic Electrical Appliances For Energy Conservation and Reducing Electricity Bills | 01-02-18 to 03-02-18 | Hands-on Training | TNSCST, VCET |

15. List of STTPs / FDPs / Workshops / Seminars / Conferences participated:

| S No | Programme | Duration | Held At | Conducted By |
|-------------|----------------------------------------------------------------------------------------------------|----------------------------|----------------------------------------|-------------------------------------------------|
| 1. | Prof .S. Palanichamy Felicitation Seminar on Recent Trends In Electrical Engineering | 21-6-97. | PSG College of Technology | PSG College of Technology |
| 2. | Workshop On Entrepreneurship | 24-2-2000 | KEC | KEC |
| 3. | Zeal Leadership | Completed on 5-2-1999 | KEC | KEC |
| 4. | MIPOWER -Power System Analysis Software | | ERDC, Bangalore | KEC |
| 5. | 3 rd International Conference TIMA 2001, Trends in Industrial Measurements & Automation | 17,18 & 19, August 2001 | CSIR complex, Chennai | Anna University & Instrument Society of America |
| 6. | Java Core Learning Suite | 24-9-2001 to 11-10-2001 | RCS Education Systems, Bangalore | Sun Micro Systems - AICTE |
| 7. | Winter School on "VLSI Design and Embedded Systems" | 29-10-2001 to 11-11-2001 | KEC | AICTE |
| 8. | ISO Awareness Programme | 2-11-2001 | KEC | Zandig Consultants, Bangalore |
| 9. | CII - Techno Education Summit | 29,30-1-2002 | Chennai | AICTE & CII, Southern Region |
| 10. | Short Term Course on DSP and Embedded Systems | 18-03-2002 to 22-03-2002 | PSG College of Technology, Coimbatore | Organised under NETWORK project |
| 11. | Curriculum Development Workshop on Advanced Computer Architecture | 3,4,5-10-2005 | Anna University | Intel India |
| 12. | UGC sponsored Refresher course on "Simulation Tools for Electrical Engineering Applications" | 05-12-2005 | 24-12-2005 | UGC-Academic Staff College, JNTU Hyderabad |
| 13. | International Conference on Total Engineering , Analysis & Manufacturing Technologies, 2007 | Oct.4, 6, 2007 | Indian Institute Of Science, Bangalore | TEAMTECH |
| 14. | Embedded Systems Conference | Oct 5 th , 2007 | NIMHANS CC, Bangalore | ESC, India |
| 15. | Academic & Administrative Workshop | 5-12-07 | Anna University , Coimbatore | Anna University , Cbe |
| 16. | Entrepreneur Curriculum Development | 11 to 13- | Intel Technology | DST,UC |

| | | | | |
|-----|-----------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------|----------------------------------------------------------|
| | | 12-07 | India , Bangalore | Berkeley |
| 17. | Training Workshop for Academic Auditors | 27,28-01-09 | Kumaraguru College of Technology, Cbe | Anna University, Cbe |
| 18. | Short Term Course on Power Quality and Energy Management Perspectives in Indian Industries | 24,25-7-09 | Coimbatore Institute of Technology | CIT, CDAC-Thiruvananthapuram under NaMPET |
| 19. | FDP on Developing Managerial Skills | | Kongu Engineering College | HRD Cell, Kongu Engg. College |
| 20. | Conf on Education For Sustainable Development | 13-3-2011 | CII, Chennai | Hotel Taj Coromandel, Chennai |
| 21. | Infosys Campus Connect Conclave | 23-12-11 | Infosys, Bangalore | Infosys |
| 22. | 4 th Nat. Conf. on Recent Trends in Electrical Technology | 17-3-12 | VCET | VCET |
| 23. | 3_Day workshop on “ Training of Evaluators / Resource Persons on Outcome Based Accreditation” | 9-11 May 2013 | NBA and BIT | Bannari Amman Inst of Tech |
| 24. | 1 st National Higher Education Conclave | 29,30-11-13 | Hotel Le Meridian , Coimbatore | CII Coimbatore |
| 25. | Spoken Tutorial on SciLab | 29-4-14 | VCET | IIT Bombay |
| 26. | Workshop on Intellectual Property Rights & innovation | 6-11-15 | VCET | VCET & Anna Univ-Centre For Intellectual Property Rights |
| 27. | 2 nd National Higher Education Conclave | 18,19-11-15 | Hotel Le Meridian , Coimbatore | CII Coimbatore |
| 28. | Keysight Educational Safari-1 Day workshop | 27-6-17 | VCET | Sinetech Technology |
| 29. | ICMR sponsored 2-Day National Seminar on Prediagnosis of Tumor and Lung Cancer | 23,24-2-18 | VCET | Dept. of ECE, VCET |
| 30. | CSIR sponsored 1 day Seminar on Dynamical Systems and Differential Equations | 9-8-19 | VCET | Dept. of Mathematics, VCET |
| 31. | AICTE Online Orientation Trg Pgm for Mentors | 7to11-02-2022 | National Initiative for Technical Teachers Training | NITTTR |
| 32. | VCET-ECE | 13-12-23 | Empowering Educators: Modern Approach to Teaching AI and Electronics | |

16. Personal Details:

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(K.R.Valluvan)