#### **BIO DATA**

Name: Dr. D.Vijaya Kumar

**Employee ID:** A5EEE00T29

**Designation:** Professor

**Department:** EEE

**Date of Birth:** 10-08-1974

**Father Name:** Dr.D.V.G.S.Naidu

**Mother Name:** D.Dhamayanthi

**Reservation Category:** BC-D

**Address: D. No:** 3-1-6, Kattera Street, Srikakulam

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**Date of Joining in the Institution:** 09-09-2011

#### **Academic Excellence:**

QUALIFICATION	BOARD / UNIVERSITY	DIVISION	YEAR
Ph. D	A.U. College of Engineering, Andhra University, Visakhapatnam	-	2010
M.E	A.U. College of Engineering, M.E Andhra University, Visakhapatnam		2000
B.E	B.E College of Engineering GITAM, Andhra University, Visakhapatnam		1997

## **Total Years of Experience (Teaching/Industry):** 17 Years

Period		Organization/Institution/Industry	Designation	
Sept 2011	Till Date	Aditya Institute of Technology and management, Tekkali	Professor	
Feb 2011	August 2011	Institute of Technology, GITAM university, Visakhapatnam	Assoc. Prof.	



June 2009	Jan. 2011	PRIME College of Engineering, Vizianagaram	Assoc. Prof.
May 2008	June 2009	College of Engineering VITAM, Visakhapatnam	Assoc. Prof.
Oct. 2005 May 2008 Colle		College of Engineering SISTAM, Srikakulam	Assoc. Prof.
June 2000	Sep. 2005	College of Engineering SISTAM, Srikakulam	Assistant Professor

#### **Areas of Interest:**

- 1. Power System
- 2. Control System

## **Guidance of Academic Projects:**

i) Doctoral Projects: 04(Guided)
 ii) Masters Projects: 18(Completed)
 iii) Bachelor Projects: 20(Completed)

**Sponsored Research Projects: ---**

Honors and awards received: - ---

Memberships of Professional Societies and Other Organizations: MISTE

## Other Responsibilities:

- 1. Head of the Department
- 2. BOS Chairman
- 3. Dean-Academics

#### **Details of Book Publications: -**

 A Text Book on Power System Operation and Control Published by Scitech Publications (India) Pvt., Chennai in 2004.

## **Details of Publications:**

Published Papers  $\rightarrow$  107

(International Journal Publications→73

National Journal Publications→02

International Conferences Papers  $\rightarrow$ 16

National Conferences Papers  $\rightarrow$ 16)

## **International Journal Publications:**

- 1) G.V.K.R. Sastry, **D. Vijaya Kumar**, "Large scale MIMO-interval system reduction using improved SRAM" International Journal of Engineering Research & industrial Applications (IJERIA)., vol.1, No.VI, ISSN: 0974-1518, pp 301-308., 2008.
- Sastry G.V.K.R, Vijaya Kumar. D.,"Linear Uncertain systems reduction using IRAM", International journal of Applied Engineering Research (IJAER),ISSN 0973-4562 Volume 4 Number 12 pp. 2415- 2422, 2009 (Scopus)
- 3) G. Prasad, **D. VijayaKumar**, V. Raj Kumar, M. Ebraheem, "A New Approach for Voltage Stability in a Multi bus System Using ANN Technique", IFRSA's International Journal of computing, vol.1,issue4,October 2011, pp 629-634.
- 4) V.Raj Kumar, B.Viswanath, **D.Vijaya Kumar**, B.Venkata Ramana, "A Heuristic Based multi-Objective Approach for Network Reconfiguration of Distribution Systems", International Journal of Innovative Design and Engineering, ISSN 2222-2871 (Online), vol.2, No.5, 2011 pp: 22-33, (Scopus)
- 5) U.Mohan Rao, A. Pramoda, **D. Vijay Kumar**, "Decision Tree based UV/VIS Response to access the age of Transformer oil", International journal of power system operation and Energy Management, Volume1, Issue2, pp 113-118, 2011 ISSN:2231-4407.
- 6) U.Mohana Rao, R.K. Jarial and **D. Vijaya Kumar**, "High voltage grounding design, maintenance, experience: A case study", International journal of Electrical and Power Engineering, Volume5, Issue 6, 2011, ISSN:1990-7958, pp 224-228.
- 7) **Dr.D.Vijaya Kumar,** B.Ramya, "Optimal capacitor placement and sizing in lowerdistribution systems for harmonic reduction and Improving voltage profile and using particle swarm optimization", The International Journal of Engineering and Innovative Applications (IJEIA), Volume1, Issue 2, pp 679-686 Nov 2012, ISSN 2248-9278.
- 8) **Dr. D. Vijaya Kumar,** D. Vanajakshi, "Speed and Torque Control of BLDC motor with PID Controller", International Journal of Engineering and Innovative Applications (IJEIA) Volume 1 Issue 2, pp724-731, Nov 2012, ISSN 2248-9278.
- 9) **Dr.D.Vijaya Kumar,** Ramavathu gopinaik, S. Naga Raju "Sensor less speed estimation technique for the vector controlled permanent magnet synchronous motor drive", International Journal of Advances in Science and Technology (IJAST), Vol 6, No.1, pp 06-14, Jan 2013, ISSN 2229-5216.

- 10) **Dr.D.Vijaya Kumar**, Suresh Kumar Sahu, I.Ramesh, "Simulation of UPQC using Cascaded Multilevel Inverter & Comparing it with Shunt & Series Active Power Filters "International Journal of Scientific & Engineering Research, (IJSER) Volume 4, Issue 2, February-2013, ISSN 2229-5518.
- 11) **Dr.D.Vijaya Kumar,** U.Mohan Rao, "Recent Trends in Condition Assessment ofInduction Motor Drives", International Journal of Electrical and Electronics Engineering Research (IJEEER) Vol.3, Issue 5, pp 65-76, Dec 2013, ISSN (P):2250-155X;ISSN(E):2278-943X.
- 12) S.Baji, **Dr.D.Vijaya Kumar**, S.Naga Raju, "Three Phase single boost inverter with Coupled inductor for renewable Energy sources", International journal of engineering Research & Technology (IJERT), vol2, issue11, nov 2013., ISSN: 2278-0181, pp 77-83.
- 13) Chandra sekharrao. M, Naga raju.S, **Dr.D. Vijaya Kumar**, "Performance Evaluation of Static Compensation for Grid Connected System for Power Quality Improvement Features", International Journal of Engineering Research & Technology (IJERT) vol2, issue 11, Nov 2013, pp 2284-2288.
- 14) Rajasekhar, S. Naga Raju, **Dr.D.Vijaya Kumar** "Applications of wavelets in power quality disturbances, 'International Journal of Advances in Science and Technology, vol.7, no.2, Aug, 2013. pp 51-57
- 15) **Dr. D.Vijaya Kumar**, Satish kumar R, BB Rath, "Optimum Design of a Hybrid PV/Wind energy system using genetic algorithm", IOSR Journal of engineering, vol.04, issue 01, January 2014, pp38-48.
- 16) **Dr. D,Vijaya Kumar**, Satish Kumar R,B.B.Rath, "Optimization of Hybrid pv/wind Energy System using Genetic Algorithm", International Journal of Engineering research and Applications, vol.4, issue1, jan2014, ISSN:2248-9622, pp 29-37.
- 17) N. Sowjanya, **Dr.D.Vijaya Kumar**, "Distributed Renewable Resources Constructed with multilevel converter using SVM Technique1, vol.1, issue2, April 2014, ISSN: 2248-9278, pp1898-1906.
- 18) G.Sravanthi, **D.Vijaya Kumar**, I.Ramesh, "24 Pulse AC-DC Converters for improved power Quality", International Journal of Electrical and Electronics Engineering Research, vol.4,issue2,April 2014, pp 223-228, ISSN (P) 2250-155X, ISSN (E): 2278-943X.
- 19) **Dr.D.Vijaya Kumar**, B.Manmadha Kumar, I.Ramesh, A.Jagannadham", Static voltagecollapse studies in power systems", International journal of scientific &

- Engineering Research, vol.5, issue 4. April 2014, ISSN 2229-5518.
- 20) M.Prasanthi, Dr.D.Vijaya Kumar, "Control Strategy for Fault Current Interruption in a Radial Distribution Line using Dynamic Voltage Restorer", International Journal of Engineering and Technical Research (IJETR) ISSN: 2321-0869, Volume-3, Issue-6, June 2015, pp232-237
- 21) K.Swetha, Dr.D.Vijaya Kumar, Phani Kumar Samsani, "Load Frequency Control of a Single Area Power System Using Type-1 Fuzzy Controller", International journal of computational science, mathematics and Engineering, Volume2, Issue7, July 2015, ISSN (online):2349-8439, pp38-43
- 22) K.Swetha, **Dr.D.Vijaya Kumar**, "Load Frequency control in a single area power system using optimal control design", International journal of scientific & engineering research, volume6, issue7, July-2015, ISSN 2229-5518, pp1889-1897
- 23) **D.Vijaya Kumar,** B.Trinadha, K.Prameela, "Z-Source inverter based dynamic voltage restorer for the mitigation of voltage sag/swell", 87-94, volume05, No.2, August-2016, ISSN 2252-8792, pp 87-94.
- 24) V.Gowtahami, Dr. D.Vijaya Kumar, "Analysis and implementation of PI and fuzzy controllers for MPPT based PV cell for Grid connection", International journal of scientific & Engineering and technology research, volume04, issue33, August-2015, ISSN 2319-8885, pp 6522-6527.
- 25) D.Sagar Kumar, **D.Vijaya Kumar**, "A Single-phase voltage-controlled grid-connected photovoltaic system with power quality conditioner functionality", International journal of Engineering research& general Science, volume03, issue06, November-December,2015, ISSN 2091-2730, pp 583-590.
- 26) D.Byragi Naidu, **D.Vijayakumar**, Bibhuti Bhusan Rath, "A Novel high efficiency highstep-up interleaved converted with voltage multiplier circuit for PV system International journal of engineering research& general Science, volume3, issue5, September-October, 2015, ISSN 2091-2730, pp 274-288.
- 27) **Dr.D.Vijaya Kumar,** D.Dhanajaya, "A new simplified asymmetrical multilevel inverter topology with fundamental switching control", International journal of engineering research& general Science, volume4, issue2, March-Aril, 2016, ISSN 2091-2730, pp 473-479.
- 28) Dr. D. Vijayakumar, I. Ramesh, K.Meghana, "Control of PMSM using neuro-Fuzzy

- basedSVPWM technique", International journal of innovative research in science, Engineering and technology, Vol.5, issue 11, Nov 2016, pp 18953-18960, (Online): 2319-8753.
- 29) **Dr. D. Vijayakumar,** K.S. Goutham, B.Vineel, "Enhancing power quality to sensitive loads with micro grid using Fuzzy logic controller", International journal of innovative research in science, Engineering and technology. Vol.5, issue 10, Oct 2016, ISSN(Online): 2319-8753, ISSN (Print): 2347-6710, pp 17720-17726.
- 30) **Dr. D. Vijayakumar,** B. Trinadha, J.Vijaya Chandra, "Analysis of a micro grid with solarand wind energy systems", International journal of innovative research in science, Engineering and technology. Vol.5, issue 09, Sept 2016, pp 17186-17193.
- 31) **Dr. D. Vijayakumar,** K.KushalKumar, "Power Enhancement by adopting Active PowerFilter Scheme with Fuzzy Logic Control under Grid Distortions," Anveshana's International Journal of Research in Engineering and applied Sciences." Vol.1, issue 9, Sept 2016, PP 185-190.
- 32) **Dr. D. Vijayakumar**, K.Kushal Kumar, "Power Enhancement by adopting Active Power Filter Scheme with PI based once cycle control under Grid Distortions," Anveshana's International Journal of Research in Engineering and applied Sciences." Vol.1, issue 11, Nov 2016, PP 205-210.
- 33) **Dr. D. Vijayakumar,** N.Kruparani, I.Ramesh"Maximum Power Point Tracking forPhotovoltaic System by Incremental Conductance Method Using Boost and Buck-BoostConverter", International Journal of Innovative Research in Science, Engineering and Technology". Vol.6, Issue.6, June 2017, PP: 12103-12110.
- 34) **Dr. D. Vijayakumar,** P.Eswara Rao, "Harmonics Mitigation by using fuzzy based D-Statcom in Distribution System", International Journal of Innovative Research in Science, Engineering and Technology". Vol.6, Issue.7, July 2017, PP: 13089-13097.
- 35) **Dr. D. Vijayakumar**, K.Kushal Kumar, "Power Enhancement by adopting active powerfilter scheme with control strategies under Grid Distortions". International Journal of Applied Engineering Research, Vol.12 Issue.16, (2017), ISSN: 0973-4562, PP: 5721-5728. (Scopus)
- 36) **Dr. D. Vijayakumar,** S.Sireesha, Srinivasa Acharya'' Fuzzy based UPFC system forreduction of harmonica and line losses'', international Journal of advanced research in dynamical and control systems, Vol.9, special issue-12, 2017, ISSN: 1943-023X,

- 37) Dr. D. Vijayakumar, Y.LavanyaKumari, T.Lokanadha Rao' Fault current reduction indistribution system using fuzzy based active SFCL', international Journal of advanced research in Dynamical and control systems, Vol.9, special issue-12., 2017, ISSN: 1943-023X, PP:664-675.
  (Scopus)
- 38) K. Swetha, **Dr. D. Vijayakumar**," Modelling of PID controller for AGC of a multi-area system with thyristor controlled series controller", International journal of control theory and applications, Vol.10, number 26, (2017). PP: 231-238, ISSN: 0974-5572 (**Scopus**)
- 39) N. Vasu, **Dr. D. Vijayakumar,**" Power system Real time Monitoring and Control", journal of Advanced Research in Dynamical and control Systems, Vol.09, special issue-14, 2017, ISSN: 1943-023X, PP: 1457-1467. (Scopus)
- 40) **Dr. D. Vijayakumar,** B.Manmadha Kumar' Design and analysis of BFOA optimized PIDcontroller with derivative filter for frequency regulation in distributed generator system', International journal of automation and control, Vol 12, Number 02, (2018). ISSN: 1740-7524, PP: 291-323. (ESCI)
- 41) **Dr. D. Vijayakumar**, N. vasu, "Design and analysis of TLBO- Fuzzy PID controller forautomatic generation control", International journal of applied engineering research, Vol.13, No.24, (2018), ISSN: 0973-4562, PP: 16805-16811. (Scopus)
- 42) **Dr. D. Vijayakumar**, N. vasu, "Firefly algorithm optimized PID controller for automatic generation control of an interconnected power system", International journal of electrical engineering and technology, Vol.09, issue 04, august (2018), ISSN Print: 0976-6545 and ISSN Online: 0976-6553 PP: 83-93. (Scopus)
- 43) **Dr. D. Vijayakumar**, S. Kinnera, I. ramesh "Optimal placement of distributed generationin radial distribution system using dragonfly algorithm", journal of emerging technologies and innovative research, Vol.05, issue 11, November (2018). ISSN-2349-5162), PP: 291-300. (UGC Approved Journal)
- 44) Dr. D. Vijayakumar, N. Vasu '' Design of Fuzzy PID with filter controller for AGC of Thernal-Hydro Units'' International journal of control and Automation , Vol.13, November. 02 2020 ISSN: 2005-4297, PP: 665-676. (Scopus)
- 45) Dr. B. Srinivasa Rao, Dr. K. Kiran Kumar, **Dr. D. Vijayakumar** "Design and Simulation of Hybrid system using Cuckoo MPPT technique", International journal of Engineering and advanced technology (IJEAT), Vol.08, issue 06, August 2019, PP:

3078-3086. (Scopus)

46) Srinivasa Acharya, Dr. D. Vijayakumar "Hybrid vehicles based on multiple source data in dynamic distribution power network", Neuro Quantology Journal, Vol.18, issue 05, May 2020, ISSN: 1303-5150, PP: 114-121. (Scopus)

- 47) Srinivasa Acharya, **Dr. D. Vijayakumar** "Renewable Energy of Predictive Control Virtual Grid Via Distributed Vg-Hub", Neuro Quantology Journal, Vol.19, issue 01, Jan 2021, ISSN: 1303-5150, PP: 136-142. (**Scopus**)
- 48) Dr. K.V.S. RAMACHANDRA Murthy, **Dr. D. Vijayakumar** "Load flow solution of Distribution systems- A Bibliometric Survey", Library Philosophy and Practice (e-Journal), July-2021, PP: 3078-3086. (Scopus)
- 49) Srinivasa Acharya, S. Ganesan, Dr. D. Vijaya Kumar, S. Subramanian, "A hybridized approach for design and optimization of combined economic emission dispatch", Energy Sources, Part B: Economics, Planning, and Policy, September, 2021, Vol.16, ISSN: 1556-7257 PP: 903-928.
  Impact Factor: 3.9(SCIE)
- 50) B. Srinivasa Rao, **Dr. D. Vijaya Kumar,** K. Kiran Kumar, "power quality improvement using cuckoo search based multi-level facts controller", Journal of Engineering Research, October 2021, Vol.10 No. (4A), ISSN: 2307-1877, pp. 252-261.

#### **Impact Factor: 1(SCIE)**

- 51) Srinivasa Acharya, S. Ganesan, **Dr. D. Vijaya Kumar**, S. Subramanian, "A multi-objective multi-verse optimization algorithm for dynamic load dispatch problems", Knowledge-Based Systems, ISSN: 0950-7051, Vol.231, November 2021, PP: 01-18.

  Impact Factor: 8.8(SCIE)
- 52) Reddi Ramakrishna Saikumar, **Dr. D. Vijaya Kumar**, "Design and simulation of EV battery charger based on Renewable energy source with fuzzy logic controller", Journal of Engineering sciences, March 2022, ISSN NO:0377-9254, Vol 13, Issue 03, MARCH /2022, PP: 706-710.
- 53) Srinivasa Acharya, S. Ganesan, **Dr. D. Vijaya Kumar**, S. Subramanian, "Modeling Combined Economic Emission Dispatch for Renewable Energy System via Levy based Glowworm Swarm Optimization", Kybernetes Journal, ISSN: 0368-492X, Vol. 52 No. 9, pp. 3315-3337, April 2022, PP: 01-23. **Impact Factor: 2.5 (SCIE)**
- 54) T. Sunil Kumar, K. Venkata Rao, M. Balaji, P.B.G.S.N. Murthy, **Dr. D. Vijaya Kumar**, "Online Monitoring crack depth in fiber reinforced composite beams using optimization

- Grey Model (1,N)", Engineering fracture Mechanics Journal, Volume 271, ISSN: 0013-7944, August 2022, 108666, PP: 01-12. Impact Factor: 5.4 (SCIE)
- 55) K. R. K. V. Prasad, V. Srinivasa Rao, P. Harini, Ratna Raju Mukuri, K. Ravindra, Dr. D. Vijaya Kumar, Ramachandran Kasirajan, "Machine Learning algorithms are applied in Nano material properties for Nanosecurity", Journal of Nanomaterials, Vol 2022, July 2022, ISSN: 1687-4129, PP: 01-14.
  (SCIE)
- 56) Joddumahanthi Vijaya Chandra, Bugatha Ram varaprasad, **Vijaya Kumar Darapureddi**, Bathina Venkateswara Rao, LukaszKnypinski, "A Review of distribution system State Estimation methods and their applications in power systems", Electronics journal, January 2023, Vol.12, 603 ISSN: 2079-9292, PP: 01-18. **Impact Factor: 2.9 (SCIE)**
- 57) P. Srinuvasa Rao, **Dr. D. Vijaya Kumar**, Srinivasa Acharya, "Grid Integration of PV System", International Journal of Current Science, ISSN: 2250-1770, Vol. 13, Issue: 01, February 2023, PP: 82-97.
- 58) Srinivasa Acharya, S. Ganesan, **Dr. D. Vijaya Kumar**, S. Subramanian, "Optimization of cost and emission for dynamic load dispatch problem with hybrid renewable energy sources", Soft computing Journal, volume 27, pages 14969–15001, ISSN: 1433-7479, June 2023

  Impact Factor: 4.1 (SCIE)
- 59) K. Swetha, **Dr. D. Vijaya Kumar**, V.S.Vakula, ''Design of Self Organized Membership Functions for an Optimal Fuzzy Controller in Enhancing Frequency Regulation'', Electrical Engineering Journal, 105, pages 4549–4567, ISSN: 1432-0487, September 2023

  Impact Factor: 1.8 (SCIE)
- 60) K. Swetha, **Dr. D. Vijaya Kumar**, V.S.Vakula, "Load frequency control for unequal Multi-Area power system by generation control strategy using CFO (PR)<sup>2</sup> Controller", Electrical Power components and systems Journal, Online ISSN: 1532-5016, September 2023, PP: 01-19

  Impact Factor: 1.5 (SCIE)
- 61) Srinivasa Acharya, B. M. Praveen, **Dr. D. Vijaya Kumar**, "ON-OFF grid based optimal power transmission using fire hawk pyramid squeeze ResNet", November 2023, Electrical Engineering Journal, ISSN: 1432-0487, PP: 1-17**Impact Factor: 1.8 (SCIE)**
- 62) M. Satish Kumar, I. Ramesh, **Dr. D. Vijaya Kumar**, "A novel single input multi- output converter fed induction machine drive for industrial application", International journal of Electrical and Electronics Engineering, ISSN: 2319-8885, Vol.4, issue 05, 2014, PP: 243-247.

- 63) U. Mohana Rao, **Dr. D. Vijaya Kumar**, "A Novel Technique to Precise the Diagnosis of Power Transformer internal faults", International Journal of Electronics and Electrical Engineering, ISSN: 2231-5284, Vol.1, issue 03, 2013, PP: 169-173.
- 64) Swetha Monica, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, "Design and Implementation of GCMBO Control Strategy for Grid Integrated SPV-DSTATCOM", e-Prime Advances in Electrical Engineering, Electronics and Energy journal, ISSN: 2772-6711, Vol.6, November 2023, PP: 1-20.
- 65) Srinivasa Acharya, B. M. Praveen, Dr. D. Vijaya Kumar, "Deep Q-Learning-Based Mud Ring Optimization Approach for Optimal Power Flow in Islanded DC Microgrid", November 2023, Electric Power Components and Systems Journal, ISSN: 1532-5016, PP: 01-13
  Impact Factor: 1.5 (SCIE)
- 66) Srinivasa Acharya, **Dr. D. Vijaya Kumar**, "Frequency stabilization and synchronization between grid and AC microgrid", March 2024, Electric Power Systems Research Journal, ISSN: 0378-7796, 228 (2024) 110045, PP: 01-11

## **Impact Factor: 3.9 (SCIE)**

- 67) B. Sriram Vivek, K. Swetha1, Dr. D. Vijaya Kumar, "Implementation of Fuzzy Logic Controller in Three Area Multi Source LFC System", January 2018, International Journal of Engineering & Technology Journal, ISSN: 2227-524X, Vol.7 (3.31), (2018), PP: 55-58.
- 68) Neyyala Raju, N. Murali Mohan, **Dr. D. Vijaya Kumar**, "A Switch-inductor Switched-capacitor Based Ultra-gain Boost Converter: Analysis and Design", Transactions on Energy Systems and Engineering Applications (TESEA) Journal, volume 5, No.1, pages 1-20, ISSN: 2745-0120, February 2024.
- 69) Swetha Monica, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, "A Switch-inductor Switched-capacitor Based Ultra-gain Boost Converter: Analysis and Design", e-Prime Advances in Electrical Engineering, Electronics and EnergyJournal, volume6, No.100356, pages 1-11, ISSN: 2772-6711, November 2023. (ESCI)
- 70) Swetha Monica, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, "Integrated Fuzzy Logic Control for Voltage Stability and Harmonic Suppression in SPVDSTATCOM Networks", Neuro QuantologyJournal, volume 22, issue 3, pages 300-309, ISSN: 1303-5150, June 2024.
- 71) Nallam Vani Annapurna Bhavani, Alok Kumar Singh, Dr. D. Vijaya Kumar,

- "Optimized integration of renewable energy sources using seven-level converter controlled by ANFIS-CS-GWO", e-Prime Advances in Electrical Engineering, Electronics and EnergyJournal, volume 9, No.100689, pages 1-12, ISSN: 2772-6711, July 2024.

  (ESCI)
- 72) Nallam Vani Annapurna Bhavani, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, "Modeling of GAO-ANFIS controller based hybrid solar photovoltaic and wind power system with seven-level converter", Energy Storage and Saving Journal, volume 9, No.100689, pages 1-12, ISSN: 2772-6711, July 2024.
- 73) Nallam Vani Annapurna Bhavani, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, "Enhancing Wind turbine performance with adaptive maximum power point tracking controller", Neuro Quantology journal, volume22, issue 3, pages 310-318, ISSN: 1303-5150, June 2024.

#### **National Journal Publications:**

- 1) D.Vijaya Kumar, "Fuzzy PI controller considering GRC for load frequency control problem in two area power system", National journal of Engineering Today, volume-X, Issue-5, pp20-24, 2009
- 2) G.Prasad, D.Vijaya Kumar, M.Ebraheem, A.Muneiah, "Study of the voltage stability in a multibus power network using AI technique", i-managers journal on Electronics Engineering, vol.1, No.4, June- August, 2011.

#### **International Conference Papers:**

- 1) G.V.K.R.Sastry, P.Mallikarjuna Rao, **D.Vijaya Kumar**. "Improvement to simplified Routh approximation method of continuous time interval systems", IEEE International conference on recent advancements and applications of computer in Electrical Engineering to be held in University college of Engineering, Bikaner, Rajasthan, India, March 24-25, 2007
- 2) G.V.K.R.Sastry, D.Vijaya Kumar, P.Mallikarjuna Rao, "Modelling of high order discrete time interval systems using improved Routh approximation method" International conference on modeling and simulation Coimbatore, August 27-29, 2007
- 3) U.Mohan Rao, R.K.Jarial, N.Gowtham Kumar, **D.Vijay Kumar**, "A Novel Fuzzy Logic Based Technique to Find the Critically of Power Transformer, International Conference on Computational Intelligence and Engineering Applications, Bhubaneswar, October, 16-17, 2011
- 4) **Dr. D. Vijayakumar**, P. swathi, "Modeling of PID controller for AGC of a multi area power systems with thyristor controlled series controller", International Conference on

- emerging multidisciplinary research and computational intelligence (ICEMRC1) at SRKR college of engineering, Bheemavaram on 15<sup>th</sup>, 16<sup>th</sup> Dec 2016.
- 5) L. Dinesh, **Dr. D.Vijaya Kumar**, "Harmonic Reduction using Fuzzy Controlled DC voltage Feedback Control", 1<sup>st</sup> International Conference on Innovative Product design and Intelligent Manufacturing systems at National Institute of Technology Rourkela, Odisha.
- 6) Srinivasa Acharya, Dr. **D. Vijayakumar**, "Pmsg For Better Dynamic Stability For Better Windfarm Structuring", International conference on Contemporary Research Advancements In Mechanical Engineering 2023 (Iccrame 2023) at Ramco Institute Of Technology, Rajapalayam on 24<sup>th</sup> and 25<sup>th</sup> march, 2023.
- 7) Srinivasa Acharya, Dr. **D. Vijayakumar**, "Wind farm based on PMSG for better dynamic stability", International conference on Artificial Intelligence, 5G Communications and Network Technologies (ICA5NT 2023) at Department of Electronics and Communication Engineering, Velammal Institute of Technology, Chennai on 23<sup>rd</sup> and 24<sup>th</sup> march, 2023.
- 8) Srinivasa Rao Kalluri, Jami Deleep Kumar, S Ramana Kumar Joga, V Sudhakar, G. Jagadeesh, **Dr. D. Vijayakumar**, 'A complex multi power quality disturbances detection and classification using MRA DWT and K-NN classifier technique, in second international conference for Advancement in technology during 24<sup>th</sup> -26<sup>th</sup> January 2023. ISBN: 978-1-6654-7517-4
- 9) Swetha Monica, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, 'Smart Integration of Solar Energy: Optimizing Power Quality with SPV-DSTATCOM for Enhanced Harmonic Suppression and Power Factor Correction', in 5<sup>th</sup>international conference for Artificial Intelligence And It's Emerging Areas (NEC-ICA-IEA-2K24)during 12<sup>th</sup> -13<sup>th</sup>April 2024, PP 1091-1096. ISBN: 978-93-91420-57-4.
- 10) Swetha Monica, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, "Integrated fuzzy logic control for voltage stability and Harmonic suppression in SPV-DSTATCOM Networks", in 4<sup>th</sup>international conference for Engineering, technology & Business Management for during 24<sup>th</sup> -25<sup>th</sup>May 2024. ISBN: 978-93-91420-57-4.
- 11) Nallam Vani Annapurna Bhavani, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, 'Efficient Energy Conversion and Management in a Hybrid Solar Photovoltaic-WindSystem with PWM Technique'', in 5<sup>th</sup>international conference for Artificial Intelligence And It's Emerging Areas (NEC-ICA-IEA-2K24)during 12<sup>th</sup> -13<sup>th</sup>April 2024, PP 1091-1096. ISBN: 978-93-91420-57-4.
- 12) Dr. D. Vijaya Kumar, "Enhancing Wind turbine performance with adaptive maximum

- power point tracking controller", in 4<sup>th</sup>international conference for Engineering, technology & Business Management for during 24<sup>th</sup> -25<sup>th</sup>May 2024. ISBN: 978-93-91420-57-4.
- 13) Nallam Vani Annapurna Bhavani, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, ''Efficient Energy Conversion and Management in a Hybrid Solar Photovoltaic -WindSystem with PWM Technique'', in 5<sup>th</sup> international conference for Artificial Intelligence And It's Emerging Areas (NEC-ICA-IEA-2K24) NEC Narsaraopet during 12<sup>th</sup> -13<sup>th</sup> April 2024, PP 1091-1096. ISBN: 978-93-91420-57-4.∖
- 14) Nallam Vani Annapurna Bhavani, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, '' Optimizing Seven-Level Converter Performance in Renewable Energy Systems Using GWO'', in 2024 International Conference on Intelligent Algorithms for Computational Intelligence Systems (IACIS) at Navkis college of Engineering, Hassan (NCEH) during  $23^{rd} 24^{th}$  August 2024, PP 1-6. ISBN: 979-8-3503-6066-0.
- 15) Nallam Vani Annapurna Bhavani, Alok Kumar Singh, **Dr. D. Vijaya Kumar**, "Optimizing Seven-Level Converter Performance in Renewable Energy Systems Using GWO", in 2024 International Conference on Intelligent Algorithms for Computational Intelligence Systems (IACIS) at Navkis college of Engineering, Hassan (NCEH) during  $23^{rd} 24^{th}$  August 2024, PP 1-6. ISBN: 979-8-3503-6066-0.
- 16) Nallam Vani Annapurna Bhavani, Alok Kumar Singh, Dr. D. Vijaya Kumar, "Power Management in Grid-Connected SPVDSTATCOM Systems with Metaheuristic Optimization", in 2024 International Conference on Intelligent Algorithms for Computational Intelligence Systems (IACIS) at Navkis college of Engineering, Hassan (NCEH) during 23<sup>rd</sup> 24<sup>th</sup> August 2024, PP 1-6. ISBN: 979-8-3503-6067-7.

### **National Conference Papers:**

- G.V.K.R.Sastry, **D.VijayaKumar**,"A new method of high order MIMO interval system reduction retaining Impulse energy", IEEE sponsored Conference on computational intelligence, control and computer vision in Robotics & Automation, Roorkela, March 9-10, 2008.
- 2) Dr. D.Vijaya Kumar, SkBajibasha, S.NagaRaju"PowerQuality Improvement By UPQC", National Conference on Recent Developments in Electrical Engineering (NCRDEE-2013), Aditya Institute of Technology and Management, Tekkali, March 15-16, 2013
- 3) **Dr. D.Vijaya Kumar,** D.Vanajakshi, A.Jagannadham, "Direct Toque Control of BrushlessDC Drives with PWM Technique, National Conference on Recent

- Developments in Electrical Engineering (NCRDEE-2013), Aditya Institute of Technology and Management, Tekkali, March 15-16, 2013
- 4) **Dr. D.Vijaya Kumar**, Suresh Kumar Sahu, I.Ramesh, "Simulation of UPQC-ML usingHysteresis Control", National Conference on Recent Developments in Electrical Engineering (NCRDEE-2013), Aditya Institute of Technology and Management, Tekkali, March 15-16, 2013
- 5) **Dr. D.Vijaya Kumar,** B.Ramya, "Optimal Capacitor Placement and Sizing Unbalanced Distribution Systems for Minimize the Transmission Line Loss and to Improve the Voltage Profile Consideration Using Particle Swarm Optimization", National Conference on Recent Developments in Electrical Engineering (NCRDEE-2013), Aditya Institute of Technology and Management, Tekkali, March 15-16, 2013.
- 6) **Dr. D. Vijayakumar**, B. Trinadha, "Modeling and control strategies for a micro grid with Hybrid systems", National conference on recent advances in control of energy systems at Sivani engineering college, Srikakulam on 16<sup>th</sup>& 17<sup>th</sup> Dec 2016
- 7) Srinivasa Acharya, Dr. S. Ganesan, **Dr. D. Vijayakumar**, Dr. S. Subramanian "Optimum Load Dispatch using Multi-Verse Optimization", National conference on Research & Innovations in Engineering Sciences& Management at GIET Engineering college, Rajahmundry on 8<sup>th</sup>- 9<sup>th</sup> March2019.
- 8) Srinivasa Acharya, Dr. S. Ganesan, Dr. **D. Vijayakumar**, Dr. S. Subramanian "Performance of Metaheuristic methods for combined economic and emission dispatch", National conference on Research & Innovations in Engineering Sciences& Management at GIET Engineering college, Rajahmundry on 8<sup>th</sup>- 9<sup>th</sup> March2019.
- 9) Srinivasa Acharya, Dr. S. Ganesan, Dr. **D. Vijayakumar**, Dr. S. Subramanian "A new Muti verse optimization Algorithm for solving Combined Economic Emission Dispatch Problems", National conference on Emerging Technologies in Electrical System (ETES-2019) at Government Engineering College, Salem on 4<sup>th</sup> April 2019.
- 10) Chandra Sekhara Rao Menda, Dr. D. Vijayakumar, "Optimal Interconnection of connecting weights of an Artificial Neural Network using Simple Particle swarm optimization Technique", National conference on Design thinking Transdisciplinary Challenges and opportunities at Andhra University, Visakhapatnam on 7<sup>th</sup> and 8<sup>th</sup> July 2023, ISBN: 978-93-5915-224-0.
- 11) N. Sowjanya, Dr. **D. Vijayakumar**, "New Aspects in Reduction of Discrete Time SISO Interval Systems Retaining Impulse Energy", National conference on Design thinking Transdisciplinary Challenges and opportunities at Andhra University, Visakhapatnam on 7<sup>th</sup> and 8<sup>th</sup> July 2023, ISBN: 978-93-5915-224-0.

- 12) Manmadha Kumar B, Tulasichandra Sekhar G, Rabindra Kumar Sahu, **Dr. D. Vijayakumar**, "Design and Analysis of FA optimized PID controller for Load Frequency Control Problem", National conference on Recent Trends in Power Electronics & Drives at Aditya Institute of Technology and Management, Tekkali on 23<sup>rd</sup>- 26<sup>th</sup>January 2016.
- 13) J.Vijaychandra, **Dr. D. Vijayakumar**, B.Trinatha, "Simulation of Multi-Output DC-DC Resonant Converters" Based on Switched Resonant Converters", National conference on Recent Trends in Power Electronics & Drives at Aditya Institute of Technology and Management, Tekkali on 23<sup>rd</sup>- 26<sup>th</sup> January 2016.
- 14) K Meghana, **Dr. D. Vijayakumar**, I.Ramesh, "Multilevel Converters for Large Electric Drives by Cascading a Flying Capacitor Inverter and an H-Bridge", National conference on Recent Trends in Power Electronics & Drives at Aditya Institute of Technology and Management, Tekkali on 23<sup>rd</sup>- 26<sup>th</sup>January 2016.
- 15) B.Seshasai, Jagan Mohana Rao Ch, Manmadha Kumar B, **Dr. D. Vijayakumar**, "Fuzzy Based Speed Control of a Separately Excited DC Motor", National conference on Recent Trends in Power Electronics & Drives at Aditya Institute of Technology and Management, Tekkali on 23<sup>rd</sup>- 26<sup>th</sup>January 2016.
- 16) G. Ramarao, I. Ramesh, Dr. D. Vijayakumar, "Design And Hardware Implementation Of Multifunctional Relay For Equipment Protection", National conference on applications of evolutionary algorithms in power systems at Aditya Institute of Technology and Management, Tekkali on 28<sup>th</sup> 29<sup>th</sup> April 2017.

**Details of Conferences / Workshops / Refresher Courses Attended:** 

Sl. No	Name of the Course	Place	Title	Month & Year	Nationa l or Internat ional
1	A 3 weeks refresh course	JNTU, Hyderabad	Simulation tools for Electrical Engineering Applications	Feb-2003	National
2	A 1 Week training program	GVP college of Engineering, Visakhapatnam	Modelling of power system components	Dec-2003	National
3	A 3 weeks refresh course	JNTU, Hyderabad	Generation, Measurement & Testing in High Voltage Engg.	Oct-2004	National
4	A 2 day national workshop	Andhra University, Visakhapatnam	Emerging Trends in power sector	Jan-2005	National
5	A 2 day national workshop	JNTU, Kakinada	Real time power systems	Feb-2005	National

6	A 3 day short term course	Andhra University, Visakhapatnam	Advanced Theory of Control systems	Mar-2007	National
7	A 3 day national workshop	Shri Vishnu Engg. College For Women, Bhimavaram	Recent Advancements in Modelingand Simulation of Control systems	July-2007	National
8	A 2 day national workshop	vorkshop Engineering, Engineering Engineer		Sep-2008	National
9	A 1 day national level workshop	MVGR College of Engg., Vizianagaram	Recent Trends in Electrical Engineering	Oct-2008	National
10	2 Weeks Faculty Development Programme	AITAM College of Engineering , Tekkali	Soft Computing Application to Power System and Control MAT Lab	Apil-2012	National
11	1 day workshop	AITAM College of Engineering, Tekkali	Outcome based education	19 Jan- 2013	National
12	1day Seminar	Visakhapatnam (Mathworks)	MAT LAB & Simulink for Engineering Education	07 <sup>th</sup> Feb,20 13	National
13	1 Week Faculty Development Programme  IIM Indore		Management Capacity EnhancementProgram me	Jan 2014	National
14	02 days Workshop	AITAM College of Engineering , Tekkali	09 <sup>th</sup> ISTE A.P. Section Annual Convention and Awards Function-2014	Nov2014	National
15	1 day Workshop	AITAM College of Engineering, Tekkali	Out Come Based Education	Dec2014	National
16	1 day Workshop AITAM College of Engineering, Tekkali (in Association with IUCEE)		Out Come Based Education	March 2015	National
17	1 Week Faculty Development Programme	AITAM College of Engineering, Tekkali	Effective Solutions to Smart-Grid	April 2015	National
18	1 Andhra University, WeekContinuing Education Programme Visakhapatnam		Contemporary Applications of Control Engineering	April 2015	National
19	1 Week Workshop	AITAM College of Engineering , Tekkali	Reviving Education byImplementing Active & Guided Inquiry Experiences in	August201 5	Internati onal

			Science, Technology, Engineering, Math &Management		
20	3 days training program	AITAM College of Engineering , Tekkali	Pedagogy and Management Capacity Enhancement Program forTeaching Staff	23 <sup>rd</sup> - 25 <sup>th</sup> June, 2016	National
21	1 day Awareness Engineering staff college of India		Intellectual Property Rights(IPR) inE&IT Sector	5 <sup>th</sup> July,2016	National
22	1 week Faculty Development Programme  AITAM College Engineering, Tekkali		Optimization Techniques for ElectricalEngineering Applications	22 <sup>nd</sup> - 27 <sup>th</sup> Sept,20 16	National
23	1 week Faculty Development Program	Teaching Learning Center, IIT Patna	Component and applications of IOT	24 <sup>th</sup> to 28 <sup>th</sup> September, 2016	National
24	1 week Faculty Development Programme	NIT, Warangal and AITAM, Tekkali	Internet of things and data analytics	12 <sup>th</sup> to 17 <sup>th</sup> Nov 2018	National
25	02 Day Workshop	AITAM, Tekkali	Outcome based Education	13 <sup>th</sup> to 14 <sup>th</sup> July, 2019	National
26	1 week Faculty Development Programme	MuffakhamJarh college of Engineering & technology Hyderabad	Machine Health Monitoring & Evaluation using IOT through ICT	25 <sup>th</sup> to 29 <sup>th</sup> March, 2019	National
27	1 week Faculty Development Programme	AITAM, Tekkali	Labview in Engineering & Academic Research	27 <sup>th</sup> Jan to 01 <sup>st</sup> Feb 2020	National
28	1 week Faculty Development Programme (Online)	CMR college of Engineering & technology Hyderabad	Research opportunities in power Engineering	22 <sup>nd</sup> – 27 <sup>th</sup> April, 2020	National
29	1 week Faculty Development Programme (Online)	Rajarambapu Institute of technology Islampur, Maharastra	Design, Simulation and development of Unmanned Aerial vehicles	30 <sup>th</sup> April to 04 <sup>th</sup> May 2020	National
30	1 week Faculty Development Programme (Online)	SJB institute of technology, Bengaluru	Labview	4 <sup>th</sup> to 8 <sup>th</sup> May, 2020	National
31	2 week Faculty Development Programme (Online)	Government college of Engineering, Karad	Research opportunities in Electrical Engineering ( TEQIP- III)	7 <sup>th</sup> to 16 <sup>th</sup> May, 2020	National
32	2 week Faculty Development	Andhra pradesh state skill	Internet of things (IOT)	18 <sup>th</sup> to 30 <sup>th</sup> May, 2020	National

	Programme	Development			
	(Online)	Corporation,			
	,	Andhra pradesh			
	1 week Faculty	Chebrolu	Universal Human	13 <sup>th</sup> to 17 <sup>th</sup>	National
22	Development	Engineering	values and professional	May, 2020	
33	Programme	College, Guntur	Ethics		
	(Online)				
	1 week Faculty	M.S. Ramaiah	NBA and NAAC	04 <sup>th</sup> to 08 <sup>th</sup>	National
2.4	Development	Institute of	Accreditation Process	June, 2020	
34	Programme	technology,			
	(Online)	Bengaluru			
	2 week Faculty	NIT, Kurukshetra	Green Energy	$11^{\text{th}} - 20^{\text{th}}$	National
	Development		technologies for	June, 2020	
35	Programme		sustainable		
	(Online)		Development		
			( TEQIP-III)		
	1 week Faculty	MNIT, Bhopal	Future trends in Green	$22^{\text{nd}}$ to $26^{\text{th}}$	National
36	Development		Technologies	June, 2020	
20	Programme				
	(Online)	T 1: G ":	D 11 D	a oth	37.4
	1 week Faculty	Indira Gandhi	Renewable Power	10 <sup>th</sup> to 14 <sup>th</sup>	National
37	Development	Institute of	Generation, Control	August,	
	Programme	technology, Sarang	And Grid Integration	2020	
	(Online)		(TEQIP-III)	17th 01st	NT -1 1
	1 week Faculty	Government	Recent Advances in	$17^{\text{th}} - 21^{\text{st}}$	National
38	Development	college of	Electronics and	August,	
	Programme	Engineering,	communication	2020	
	(Online)	Kalahandi Odisha	Engineering	24th coth	NT d' 1
	1 week Faculty	Bapatla	IOT And Smart Device	24 <sup>th</sup> to 28 <sup>th</sup>	National
39	Development	Engineering Callage Paratle	Application In Green	Aug, 2020	
	Programme (Online)	College,Bapatla	Technology And Electric Vehicles		
	(Online) 1 week Faculty	Dr. N.G.P	Machine Learning &	28 <sup>th</sup> Sep to	National
	Development	INSTITUTE OF	Internet Of Things For	04 <sup>th</sup> Oct,	National
40	Programme	TECHNOLOGY,	Industrial Applications	2020	
	(Online)	COIMBATORE	mudsurar Applications	2020	
	01 Day Webinar	AITAM,	Challenges In Good	5 <sup>th</sup>	National
	(Online)	TEKKALI	Learning And	September	1 tational
41	(Simile)		Assessment - Post	2020	
			Covid 19		
	1 week Faculty	Rajasthan technical	Nano Technology	10 <sup>th</sup> to 14 <sup>th</sup>	National
4.0	Development	university, Kota	Based Green Energy	September,	
42	Programme	J /	Solution For Solar	2020	
	(Online)		Cells		
	01 Day Webinar	AITAM,	National Education	15 <sup>th</sup>	National
43	(Online)	TEKKALI	Policy 2020	September,	
			<u> </u>	2020	
	1 week Faculty	Indian society	Outcome base	$05^{\text{th}} - 09^{\text{th}}$	National
44	Development	technical Education	Education and	October	
44	Programme	( Telengana	Accreditation	2020	
	(Online)	Section)			
45	1 week Faculty	Ramachandra	An Integrative	$02^{\rm nd}$ to $06^{\rm th}$	National

	Development Programme (Online)	Programme (Online) Engineering, Eluru ethics and Moral values in Engineering Education		November, 2020	
46	2 week Faculty Development Programme (Online)  Sasi institute of technology and engineering tadepalligudem		Advanced power Electronic Applications in Power system	19 <sup>th</sup> to 31 <sup>st</sup> October, 2020	National
47	1 week Faculty Development Programme (Online)	IIT Varanasi	Transition towards Electric Vehicles and their charging Ecosystem in India	11 <sup>th</sup> to 16 <sup>th</sup> Jan, 2021	National
48	2 week Faculty Development Programme (Online)  BV Raju Institute of technology, Medak		Electric Vehicle (EV) Components, Technologies, Challenges and future Development	18 <sup>th</sup> to 30 <sup>th</sup> January, 2021	National
49	1 week Faculty Development Programme (Online)	IIT Varanasi	Challenges, opportunities and Emerging Trend in the Field of High voltage	01 <sup>st</sup> – 06 <sup>th</sup> February 2021	National
50	2 week Faculty Development Programme (Online)	Bapatla Engineering College, bapatla	Emerging technologies in Electric Vehicles	02 <sup>nd</sup> to 14 <sup>th</sup> August, 2021	National
51	One week FDP	NITTR, Chandigarh	Research Scope in Electric Vehicles	5 <sup>th</sup> Dec – 9 <sup>th</sup> Dec 2022	National
52	One week FDP	NITTR, Chandigarh	Effective Curriculum Implementation	12th - 16th December 2022	National
53	One week FDP	NITTR, Chandigarh	ANSYS-EM for Electrical Engineering Application	17 <sup>th</sup> – 21 <sup>st</sup> July 2023	National
54	One week FDP	NITTR, Chandigarh	Big Data Analytics in Smart Grid	12 <sup>th</sup> – 16 <sup>th</sup> Feb 2024	National
55	One week FDP	NITTR, Chandigarh	Employability Skills for Industry 4.0	29 <sup>th</sup> July- 02 <sup>nd</sup> Aug 2024	National
56	One week FDP	NITTR, Chandigarh	Smart Grid and Renewable Energy Sources	23 <sup>rd</sup> -27 <sup>th</sup> Sep 2024	National

# **Details of Conferences / Workshops / Refresher Courses Organized:**

Sl. No	Name of the Course	Place	Title	Month & Year	Convener / Co- Convener	National or International
1	A 2dayStudents symposium	AITAM - Tekkali	AMPERE-2K12	12 <sup>th</sup> to 13 <sup>th</sup> March, 2012	Convener	National
2.	A 2dayStudents symposium	AITAM - Tekkali	ASPIRE-2K12	21 <sup>st</sup> to 22 <sup>nd</sup> ,September 2012	Co- Convener	National
3.	A 2 Weeks Faculty Development Programme	AITAM - Tekkali	Soft Computing Application to Power System and Control MAT LAB	16 <sup>th</sup> to 29 <sup>th</sup> ,April 2012	Co- Convener	National
4.	National Conference	AITAM - Tekkali	Recent Developments In Electrical Engineering (NCRDEE-2013)	15 <sup>th</sup> to 16 <sup>th</sup> , March 2013	Convener	National
5.	Short Term Training Programme	AITAM - Tekkali	Soft Computing Applications to Power Systems (SOFTCAPS)	26 <sup>th</sup> to 28 <sup>th</sup> December 2013	Convener	National
6.	A 2dayStudents symposium	AITAM - Tekkali	ASPIRE-2K15	26 <sup>th</sup> to 27 <sup>th</sup> , February 2015	Convener	National
7.	1 Week Faculty Development Programme	AITAM - Tekkali	Effective Solutions to Smart – Grid	04 <sup>th</sup> to 08 <sup>th</sup> , April 2015	Convener	National
8.	Two days National conference	AITAM - Tekkali	Recent Trends in Power Electronics and Drives	22 <sup>nd</sup> - 23 <sup>rd</sup> , January 2016	Convener	National (DST Sponsored)
9.	1 Week Faculty Development Programme	AITAM - Tekkali	Optimization Techniques for Electrical Engineering Applications	22 <sup>nd</sup> -27 <sup>th</sup> September 2016	Convener	National

10.	1 Week	AITAM -	Labview in	27 <sup>th</sup> January to	Convener	National
	Faculty	Tekkali	Engineering	01 <sup>st</sup> February		
	Development	Toman	& Academic	2020		
	Programme		Research			
11.	International	AITAM -	Intelligent	7 <sup>th</sup> to 8 <sup>th</sup> August,	Convener	National
	Conference,		Computing in control	2020		
	Springer	Terran	and communication			
12.	ATAL FDP	AITAM -	Electric Vehicles	16 <sup>th</sup> to 20 <sup>th</sup>	Convener	National
		Tekkali		November 2020		(AICTE
		TCKKan				Sponsored)
13.	One week FDP	NITTR,	Effective Curriculum	$12^{th} - 16^{th}$ Dec	National	National
		Chandigarh	Implementation	2022		
				thth		
14.	One week FDP	,	Outcome based		National	National
		Chandigarh		=		
			Accreditation Process			

#### **Patents published:**

- 1) National Patent published on "vehicle to grid (V2G) for EV charging Energy management system", in the year of 2021 (App no: 202141051391 A).
- 2) National Patent published on '' ITV-Self balancing vehicle intelligent self balancing two wheel vehicle'', in the year of 2020 (App no: 202041014768 A).
- 3) National Patent published on "Optimized integrated renewable energy sources for improving power quality with power electronic controllers", in the year of 2023.
- 4) National Patent published on "AI integrated predictive inventory management system for manufacturing supply chains", in the year of 2023(App no: 202341076524 A).

#### Patents Granted:

- 1) International Paten Granted on 'AI and ML based cyber security Device' in the year of February 2024 (Design number: 6344601)
- 2) International Paten Granted on 'E vehicle based on solar energy' in the year of February 2024 (Design number: 6346289)

#### **Other Achievements:**

- 1. Ratified as Professor in 2012 in JNTUK selections.
- 2. Selected best paper in International Conference on Computational Intelligence and Engineering Applications to be held at Bhubaneswar, during 16<sup>th</sup>-17<sup>th</sup>, October, 2011
- 3. Received Certificate of Excellence in Electrical and Electronics Engineering by VSSUT Burla, International conference on computational intelligence in data mining, Conducted by Department of CSE, IT and MCA on 20<sup>th</sup> 21<sup>st</sup> December 2014.
- 4. Received State Teacher Award 2019 in Electrical and Electronics Engineering by Institute of scholars (International), on 05<sup>th</sup>March 2018.
- 5. Received Best Electrical and Electronics Engineering Teacher 2020 Award sponsored by Geethanjali Institute of Science and Technology, Nellore (ISTE AP Section)

- 6. Certificate of Appreciation by AICTE, New Delhi (Coordinated ATAL Online FDP on Electrical vehicles from 16-11-2020 to 20-11-2020)
- 7. Received State Teacher Award 2022 in Electrical and Electronics Engineering by Government of Andhrapradesh, on 05<sup>th</sup> September 2022.
- 8. Received best paper award on "Wind farm based on PMSG for better dynamic stability", International conference on Artificial Intelligence, 5G Communications and Network Technologies (ICA5NT 2023) at Department of Electronics and Communication Engineering, Velammal Institute of Technology, Chennai on 23<sup>rd</sup> and 24<sup>th</sup> march, 2023.

Signature