Dr. Chavali Punya Sekhar B.Tech (EEE), M.Tech (PE&ED), Ph.D (Power Electronics)
Assistant Professor
Department of EEE
Dr YSR ANU College of Engineering & Technology
Acharya Nagarjuna University
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Academic Qualifications:

Ph. D – Power Electronics, "**Wavelet Based Fault Identification and Reconfiguration for Novel Reduced Switch MLI Fed IM Drive Using Auxiliary Switching Cells",** JNTUK, 2020.

M. Tech - Power Electronics & Electric drives, First Class & Distinction (83%), Mother Teresa Institute of science & Technology, Sattupally, India, 2009-2011.
B.Tech - Electrical & Electronics Engineering, First Class (67%), Chirala Engineering College, Chirala, India, 2004-2008.

Experience:

1. Assistant Professor, Department of Electrical & Electronics Engineering, ANU College of Engineering and Technology, Acharya Nagarjuna University, Guntur, 22/08/2012 to till date
2. Assistant Professor, Department of Electrical & Electronics Engineering, KL University, Guntur, A.P., India, 01/03/2012 to 21/08/2012.
3. Assistant Professor, Department of Electrical & Electronics Engineering, Mother Teresa Institute of science & Technology, Sattupally, 06/07/2009 to 28/02/2012.
4. Assistant Professor, Department of Electrical & Electronics Engineering, QIS College of Engineering and Technology, Ongole, A.P., India, 27/05/2008 to 17/06/2009.

Subjects Handled in the Department:

For U.G	:	Power Electronics HVDC Transmission FACTS Controllers Industrial Drives, Electrical Machines-I Electrical Measurements High Voltage Engineering Generation of Electrical Power Switch Gear and Protection Utilization of Electrical Energy Transmission & Distribution Renewable Energy Sources
For P.G	:	Power Quality Power Plant Instrumentation Electrical Distribution Systems Advanced Power system Protection HVDC Transmission
Labs Handled	:	Electrical Machines 1 Control Systems Power Electronics Electrical Technology Electrical Measurements Simulation of Electrical Systems Electrical Workshop

Research Interests:

Multi-Level Inverters, Electrical Vehicles, Power electronics, Renewable energy sources.

Research Activities:

1. No of Patents	: 03
2. No of journal papers published	: 20
3. No of conference papers presented	: 06
4. No. of workshops , FDP's Organized/attended	: 12

Patents:

1. Patent application publication on "An AI Based EV Battery Charging Controller with Enhanced Battery Management" Indian Patent publication on 19th November 2021. (Application No: 202141050407 A)
2. Innovation Patent Grant on "An Artificial Intelligence based system for detection of COVID influence on human skin" Australian Patent publication on 25th April 2021 (Patent Number: 2021102184)

3. Patent application publication on "Multimode wind turbine variable pitch angle control system using Electronic control system" Indian Patent publication on 18th September 2020. (Application No: 202041039172 A)

Journals:

1. Published paper on "Electric vehicles charging in India: Infrastructure planning and policy aspects" in Energy Storage on 22nd Feb 2022. **(Web of Science)**
2. Published paper on "Wavelet Transform Based Fault Identification and Reconfiguration for a Reduced Switch Multilevel Inverter Fed Induction Motor Drive" in Electronics on 25th April 2021. **(Science Citation Indexed)**
3. Published paper on "A novel fault-detection methodology of proposed reduced switch MLI fed induction motor drive using discrete wavelet transforms" in International Transactions on Electrical Energy Systems on 16th Feb 2021. **(Science Citation Indexed)**
4. Published paper on "Minimization of total harmonic distortion and enhancing voltage level for hybrid multilevel converter with different sources" in Advanced control for Applications: Engineering and Industrial systems on 25th October 2020. (Willey publishers)
5. Published paper on "A Novel Multilevel Inverter with Reduced Number of Switches using Simplified PWM Technique" in Journal of The Institution of Engineers (India): Series B, Volume-101 Number-3, June 2020, Pages : 203–216, ISSN:2250-2106. **(Scopus Indexed)**
6. Published paper on "Design & Implementation of Compact-Integrated Solar-PV Symmetric Multilevel Inverter Topology for RES Applications" in International Journal of Engineering and Advanced Technology (IJEAT), Volume-8 Issue-5, June 2019, Pages: 769-776, ISSN: 2249- 8958. **(Scopus Indexed)**
7. Published paper on "A Novel Symmetrical & Asymmetrical Reduced-Switch Topologies for Grid Tied PV Systems" in International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-8 Issue-8, June, 2019, Pages: 2209-2215, ISSN: 2278-3075. **(Scopus Indexed)**
8. Published paper on "Simulation and Experimental Verification of Novel Multi-Level Inverter with Minimum Number of Switches" in Journal of Advanced Research in Dynamical and Control Systems (JARDCS), Volume 9 Issue 2, Nov 2017, Pages: 173-187, ISSN: 1943 – 023X. **(Scopus Indexed)**
9. Published paper on "Comparitive Analysis of H-Bridge Multilevel Inverter Fed Induction Motor Drive with Minimum Number of Switches" in International Journal of Pure and

Applied Mathematics (IJPAM), Volume 117, No. 10, Dec 2017, Pages: 75 – 78, ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version). **(Scopus Indexed)**

10. Published paper on "Modelling Combined Effect of Temperature, Irradiance, Series Resistance (Rs) and Shunt Resistor(Rsh) on Solar Cell by Matlab/ Simulink" in *International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS)*, Volume 6 Issue 6s, June 2017 ISSN : 2278-2540.

11. Published paper on "Correction Power Factor of Transmission Lines Using Advanced FACTS Controllers" in International Journal of Research and Innovation (IJRIEEE), Volume 4 Issue 1, May 2017, Pages: 630-645.

12. Published paper on "A Study on Loss & Cost Minimization by using High Voltage Distribution System" in *International Journal Of Engineering Sciences & Research Technology* (IJESRT), Volume 10 Issue 5,Oct 2016, Pages: 669-675,ISSN : 2277-9655.

13. Published paper on "Power Transformer Control by Neuro Fuzzy Controller and Haar Wavelet Transform" in International Journal of Science and Research (IJSR), Volume 5 Issue 4, April 2016 ISSN (Online): 2319-7064.

14. Published paper on "Controlling of Solar Photovoltaic Inverters in Different Modes" in International Journal of Science and Research (IJSR), Volume 5 Issue 4, April 2016 ISSN (Online): 2319-7064.

15. Published paper on "Multilevel Inverter with Reduced Power Electronic Components for Grid Connected of Renewable Energy Source" in International Journal of Scientific Engineering and technical Research, 4:43, October-2015, Pages:9476-9481, ISSN 2319-8885.

16. Published paper on "Enhancement of Power Quality for Distance Relays on Shunt-FACTS Compensated Transmission Lines" in International Journal of Scientific & Engineering Research,10:10, May-2014,pp:50 – 56, ISSN 2229-5518 .

17. Published paper on "Hybrid Differential Evolution Particle Swarm Optimization Algorithm" in International Journal of Scientific & Engineering Research, 10:10, May-2014, pp: 286 - 296, ISSN 2229-5518 .

18. Published paper on "" Bio Power Through Litter Using Sofc" in International Journal of Electrical and Electronics Engineering Research (IJEEER)3:3, Aug 2013, pp. 101-106, ISSN (Print):2250-155X,ISSN(Online):2278–943X

19. Published Paper on "High step up voltage gain achieved in DC-DC converters using Linear Peak Current Mode control technique" in International Journal of Modern Engineering Research (IJMER)2:3, May-June 2012 pp-870-875, ISSN: 2249-6645.

20. Published Paper on "Power-Quality improvement by multi pulse AC– DC converters for Varying Loads" in International Journal of Scientific & Engineering Research 2:7, JULY-2011, pp: 1 - 8, ISSN 2229-5518.

Conferences:

1. "Presented paper on "A Novel Fault Reconfiguration Technique for Proposed Reduced Switch MLI using Auxiliary Switching-Cell Units" at International Conference on Emerging Trends in Power Systems and Power Electronic drives (ICETPSPE2020) at Acharya Nagarjuna University, Guntur, from March 13th to 14th, 2020.
2. Presented Paper on "Novel Multi Level Inverter with Minimum Number of Switches" at IEEE International conference on Recent Trends in Electrical, Electronics and Computing Technologies (ICRTEECT 2017) at SR Engineering College, Warangal, from 30th to 31st July 2017. **(Scopus Indexed)**
3. Presented paper on "Comparitive Analysis of H-Bridge Multilevel Inverter Fed Induction Motor Drive with Minimum Number of Switches" at International conference on Advances in Engineering and Management Sciences (ICAEMS-17) at Santhiram Engineering College, Nandyal, from 14th to 15th July, 2017.
4. Presented Paper On "Enhancement Of Power Quality For Relays On Shunt Facts Compensated Transmission Lines" At *International Conference On Trends In Technology For Convergence (Titcon -2014)* At Avs Engineering College, Salem, From 8th To 9th April, 2014
5. Presented Paper On "Hybrid Differential Evaluation Particle Swarm Optimization Algorithm" At *International Conference On Trends In Technology For Convergence (Titcon -2014)* At Avs Engineering College, Salem, From 8th To 9th April, 2014
6. Presented paper on "Simulation and Experimental Verification of Novel Multi Level Inverter with Minimum Number of Switches" at 2nd National Conference on Emerging Trends in Power Energy and control (ETPEC-2017) at Vignan University, Guntur, from 11th to 12th August, 2017.

Workshops and FDPs attended:

1. Participated in Two day National Seminar on "March to Make in India through Engineering Advancements (MMIEA)" organized by R.V.R. & J.C. College of Engineering (A), Guntur during 29-30 September, 2016.
2. Participated in Two day National Seminar on "Recent trends in power systems (RTPS)" organized by Vasireddy Venkatadri Institute of Technology, Guntur during August 25-26, 2016.
3. Attended Two week audit course on "Intellectual property rights and patents" at JNTUK, from 16th to 30th May- 2015
4. Attended Two week audit course on "Research Methodologies" at JNTUK, from 1st to 15th May- 2015

5. Participated National Workshop on “Big Data Analytics” at University College of Engineering & Technology, Acharya Nagarjuna University, Guntur on 9th – 10th December 2014
6. Participated in Two day work shop on “Recent Advances In Power Systems” at University College of Engineering & Technology, Acharya Nagarjuna University, Guntur, during 12th -13th November 2014.
7. Participated the complimentary Training/ Orientation on “MATLAB, SIMULINK & RELATED TOOL BOXES FOR ENGINEERING EDUCATION” at Acharya Nagarjuna University, Guntur on 26th April, 2014.
8. Participated the complimentary Training/ Orientation on “MATLAB, SIMULINK & RELATED TOOL BOXES FOR ENGINEERING EDUCATION” at at VIJAYAWADA, on 5th February 2014.
9. Participated in International conference on “NAVIGATIONAL SYSTEMS & SIGNAL PROCESSING APPLICATIONS(NSSP-2013”) at ANU, Guntur, From 13th to 14th December,2013
10. Attended to “MISSION 10X Workshop” at MIST COLLEGE, Sattupalli, From 28th November to 2nd December 2011
11. Participated in Two Week Staff Development Program on “MICRO GRID AND DISTRIBUTED GENERATION” at SR Engineering College, Warangal Generation From 20th June to 2nd July 2011.
12. Participated in “Two Day Workshop on COMPUTER APPLICATIONS TO POWER SYSTEMS USING Mi POWER” Conducted by Adam’s Engineering College, Paloncha from 4th to 5th December 2009. Participated in “Two Day Workshop on COMPUTER APPLICATIONS TO POWER SYSTEMS USING Mi POWER” Conducted by Adam’s Engineering College, Paloncha from 4^{th} to 5^{th} December 2009.