



DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY

(Autonomous)

GANGURU :: VIJAYAWADA – 521 139.

(Approved by AICTE New Delhi, Permanently Affiliated to JNTU Kakinada)

ISO 9001:2015 Certified Institution, Accredited by NBA for ME, EEE, ECE&CSE.

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FACULTY PROFILE

Name of the Faculty: Dr. Guruvulu Naidu Ponnada

Designation : Associate Professor

Email & Phone No: guruponnada@gmail.com & 9052986988

Department: Electrical and Electronics Engineering.



Educational Background:

1. B.Tech From Prasad V. Potluri Siddhartha Institute of Technology, Vijayawada, A.P
2. M.Tech From Jawaharlal Nehru Technological University, Ananthapuram.
3. Ph.D from Jawaharlal Nehru Technological University, Kakinada.
4. **PG Certificate Programme (Pursing)**, AICTE QIP PG Certificate Programme in **Data Science** under Sponsored category Conducted at **Indian Institute of Technology, Bhilai, India.**

Research Areas : Power Electronics, Electrical Drives, Renewable energy Sources, Powersystems.

Experience : 16 Years

S. No	Institute	Designation	Period
1	DIET, Gangurru, Vijayawada, A.P	Associate Professor	Oct 2024 to till date
2	AITAM, Tekkali, Srikakulam, A.P	Associate Professor	July 2023 to Oct 2024
3	AITAM, Tekkali, Srikakulam, A.P	Sr. Assistant Professor	May 2012 to June 2023
4	GIET, Gunupur, Odisha	Assistant Professor	Nov 2011 to April 2012
5	AITAM, Tekkali, Srikakulam, A.P	Assistant Professor	June, 2009 to Sept. 2011
6	REC, Dakamari, Visakhapatnam, A.P	Assistant Professor	Jan. 2008 to June 2009

List of Publications (National and International Journals)

- 1) P. Guruvulu Naidu, Ch. Saibabu, S. Satyanarayana, "Fault Detection and Tolerance of a Hybrid Five Level Inverter" Iranian Journal of Science and Technology, Transactions of Electrical Engineering (2021), Springer, doi.org/10.1007/s40998-021-00415-y.
- 2) P. Guruvulu Naidu, Ch. Saibabu, S. Satyanarayana, "A Single Phase Five-Level Inverter with Single and Multiple Switch Fault Tolerance Capabilities" Electrical Engineering, (2021), Springer, DOI: 10.1007/s00202-021-01295-5.
- 3) P. Guruvulu Naidu, S. Satyanarayana, Ch. Saibabu, "Design of closed-loop control for Solar PV based Multi-Level Inverter" International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9

- 4) Guruvulu Naidu Ponnada; Ch Sai Babu; Satyanarayana, S “ Model Predictive Control for DC-DC Boost Converter for Elimination of Overshoot and Achieving Faster Response in Solar PV Applications”, i-Manager's Journal on Electrical Engineering, Vol. 14, Iss. 3, (Jan/Mar2021): DOI:10.26634/jee.14.3.17979.
- 5) P. Guruvulu Naidu, Govinda Chukka “Modeling and Simulation of Microgrid Connected Renewable Energy Resources with Svpwm Technique” (Journal of Engineering Research and Applications, ISSN: 2248-9622, Vol. 4, Issue 1(Version 7), January 2014, pp.82-87) .
6. P.Guruvulu Naidu, B.Srinivasa Rao, “Control of PMSG Wind Turbine Based on PI/ANN Controllers under Unbalanced Grid Voltage and Nonlinear Load Conditions”, IJECE, Volume 8, Pages 153-166.
7. P.Guruvula Naidu, S. Vani, B. Srinivasa Rao” Single-Carrier Modulation for 9-Level Neutral Point Clamped Inverters in Three Phase Transformerless Photovoltaic Systems” (IJSTE - International Journal of Science Technology & Engineering |, Volume 1 , Issue 10 , April 2015)
8. P.Guruvulu Naidu, K. Sumanth, B. Srinivasa Rao” Modelling of BESS/PV Interfaced System Fed BLDC Drive for Electric Vehicle Traction System(IJSTE - International Journal of Science Technology & Engineering |, Volume 1 , Issue 10 , April 2015).
9. P.Guruvulu naidu, V.Srilatha B.Srinevasa Rao, “Mitigation of current harmonics in PV-APF system using fuzzy controller”, IJRSET, Volume 5, Issue 12, Dec. 2016.
10. P.Guruvulu Naidu, Dr. S.Satyanarayana S.S.Biswas, Dr.Ch.Sai Babu, Modeling of Interleaved Fly-back Converter for Photo Voltaic Applications using PSIM, AIJRST, Volume 15, Issue 2, Pages 181-186.
11. P.Guruvulu Naidu, N.Syam Kumar, Ch.Ravi Kumar, K.Kanaka Raju “A New Simulation Approach Of 3- Φ Transformer-less Grid Connected PV Inverter Using Hysteresis Controller” IRJET, Volume: 04 Issue: 12 , Dec-2017.
12. P Guruvulunaidu, Ch.Prasad, R Durgaprasad” Solar PV Array-Fed Water Pumping System Using Zeta Converter based Closed-Loop Control of BLDC Motor Drive” International Journal Of Engineering Research & Technology (IJERT), Volume: 07 Issue: 5, pages:389-397 , May-2018.
13. P. Guruvulu Naidu, S. Saranya, Bibhuti Bhusan Rath “ Design of an ANFIS based MPPT controller for a solar photovoltaic system under partial shading condition” International Journal Of Engineering Research And Development, Volume 17, Issue 3 (May-June 2021), PP. 12-20.
14. Guruvulu Naidu Ponnada, B.Ravi Kumar, S. Ganesh, S.Arunteja,” Designing Of Electric Vehicle With Regenerative Braking System” ”, I-Manager's Journal On Electrical Engineering, Vol. 16, Iss. 3, (Jan/Mar2023).
15. Guruvulu Naidu Ponnada, B.Ravi Kumar” Passive Balancing In Battery Management System For Electrical Vehicles” ”, I-Manager's Journal On Electrical Engineering, Vol. 16, Iss. 3, (Jan/Mar2023).
16. Guruvulu Naidu Ponnada, B.Ravi Kumar, Bibhuti Rath, “Design and Implementation of Agricultural Spraying Drone” International Journal of Robotics and Automation in Mechanics (IJRAM)], Volume : 01, Issue : 01, Page : 28-33, 2023 Nov 17.
17. Ponnada Guruvulu Naidu , Thamatapu Eswara Rao, Srinivasa Rao Sura, Santosh Karra, Vasudeva Naidu Pudi ,” Implementation of MPPT Techniques to Improve the Reliability of PV-WIND Hybrid System “ International Conference on Computational Intelligence, Networks and Security (ICCINS-2023) , IEEE Xplore, 07 March 2024.
18. Guruvulu Naidu Ponnada , S. Hemanth, S. Anathi, S. Anji, and P. Dileep Kumar, “IOT Controlled Solar Powered Grass Cutter” International Journal of All Research Education and Scientific Methods (IJARESM), ISSN: 2455-6211, Volume 12, Issue 4, April-2024.
19. Guruvulu Naidu Ponnada, T Eswara Rao, S Srinivasa Rao, J Ankamma Rao, B. Trinadha, “Real time Implementation of PV-Wind Hybrid System using FPGA-MPPT Controller” Journal of Electrical Systems (JES), ISSN: 1112-5209, Vol. 20 No. 3, 2024.

Conferences:

- Guruvulu Naidu Ponnada, NTejeswara Rao, Matta Mani Sankar, “A Novel Approach for Out of Step Detection Using Extended Transient Stability Analysis Incorporating Effects of Exciter, Turbine and Speed Governor” International Conference on Computational Intelligence for Green and Sustainable Technologies (ICIGST-2024), EEE Department, Velagapudi Ramakrishna School of Engineering, Vijayawada, India during 18-19 July 2024.
- Guruvulu Naidu Ponnada, NTejeswara Rao, T Lokanadha Rao and G Ashok, “Simulation of Various Matrix Converters Using MATALAB” International Conference on Smart and Sustainable Energy Systems (ICSSES 2024) Organized by the Department of Electrical & Electronics Engineering, Vishnu Institute of Technology (A), Bhimavaram, Andhra Pradesh, India during 16-17 February 2024.
- Ponnada Guruvulu Naidu , Thamatapu Eswara Rao, Srinivasa Rao Sura, Santosh Karra, Vasudeva Naidu Pudi ,” Implementation of MPPT Techniques to Improve the Reliability of PV-WIND Hybrid System “ International Conference on Computational Intelligence, Networks and Security (ICCINS-2023) , on 22nd & 23rd December 2023, Lakireddy Bali Reddy College of Engineering (Autonomous), Mylavaram, Andhra Pradesh, India.
- P.Guruvulu Naidu,B.Ravi Kumar,B.B.Rath,” Design and Implementaion of Agricultural spraying Drone” a two-day National Conference on Recent Advances in Science and Engineering(RAIS)-2023,GVPCE(W),Visakhapatnam, A.P.
- P. Guruvulu Naidu, Ch. Saibabu, S. Satyanarayana, “ Analysis of different Multilevel Inverter topologies for grid connected Solar PV Application” seventh National Conference on Power system Engineering-2021, page No.62-67.SDMCET, Dharwad, Karanataka.
- P. Guruvulu Naidu, Ch. Saibabu, S. Satyanarayana, “ Model Predictive Control for DC–DC Buck Converter for Elimination of Overshoot and Achieving Faster Response for Solar PV Applications” seventh National Conference on Power system Engineering-2021, page No.92-97.SDMCET, Dharwad, Karanataka.
- National Conference on “Recent Trends In Power Electronics & Drives”, 22nd to 23rd January, 2016 at AITAM, Tekkali, India.
- National workshop On “Evolutionary Computing Techniques for Power Control & Drives”, January, 2011 at GITAM University, Visakhapatnam, India.
- National Conference On “Automation, Communication & Computing”, December, 2010 at GITAM University, Visakhapatnam, India.

Achievements / Awards :NIL

Dr. Guruvulu Naidu Ponnada