Dr. Hareesh Myneni

Research Interests

- Power Converters for Grid System
- Renewable Energy Sources in Smart Grid
- Power Quality Improvement Techniques
- Multi-level Inverters

Education

2014–2019 **Doctor of Philosophy (PhD) in Electrical Engineering**, *National Institute of Technology (NIT) Warangal, Telangana*, INDIA

2010–2012 **Master of Technology (M.Tech.) in Power Control and Drives**, *National Institute of Technology (NIT) Rourkela*, Odisha, INDIA, *8.2 CGPA%*

2005–2009 **Bachelor of Technology (B.Tech.) in Electrical and Electronics**, *Vignan's Engineering college, Guntur, affiliated to JNTU Kakinada (presently Vignan University)*, Andhra Pradesh, INDIA, *68.59%*

PhD working area

Thesis title ***Power Quality Enhancement by DSTATCOM with Improved Performance***

Supervisor Dr. G. Siva Kumar, Asst. Professor, NIT Warangal

Description Power quality can be significantly improved by using DSTATCOM in distribution system. DSTATCOM is a combination of passive filter and voltage source converter (VSC) linked to a common DC-link capacitor. The VSC compensate reactive power and mitigate harmonics such that the three-phase source current is balanced, free from harmonics and in-phase with source voltage. This converter has capability to inject real power by integrating solar PV to DC-link capacitor. The solar PV is nonlinear in nature, so by implementing an adaptive dc voltage regulation, the efficiency and reliabiliy of system is improved.

Experience (Teaching & Industrial)

April-2021 – till date **Assistant Professor**, *National Institute of Technology*, Srinagar, Jammu & Kashmir, INDIA

June 2019 – March-2021 **Assistant Professor**, *V R Siddhartha Engineering College*, Vijayawada, Andhra Pradesh, INDIA

July 2013 – July-2014 **Assistant Professor**, *Vignan's Nirula Institute of Technology and Science for Women*, Guntur, Andhra Pradesh, INDIA

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July 2012 – June 2013 **Junior Engineer**, *Jyoti Bio Energy Limited*, Ongole, Andhra Preadesh, INDIA

Computer skills

Operating System	Windows, XP
Design and Analysis Tool	MATLAB/SIMULINK, PSPICE/ORCAD, VISIO, SMARTDRAW and PLECS.
Programming Language	C and Python
Word Processing	LaTeX, Microsoft Word, Excel
Experienced Equipment	dSPACE DS1104, dSPACE MicroLabBox (FPGA based controller) DS 1102, OPEL-RT, PCB design with Orcad 9.2 and Altera-Altium.

Extra-curricular activities

- **Conducted** Five days workshop on "Multi-physics Analysis of Electrical Machine Using ANSYS Software and PLECS Simulation Tool for Power Electronics Applications" organized by Department of Electrical Engineering, NIT Srinagar and sponsored by DST-SERB-CRG research project (under Scientific Social Responsibility grant) between 25th -29th October 2021.
- **Conducted** one week workshop on "Introduction to PLECS Tool for Power Electronics Applications" in Association with PLEXIM, Switzerland, July 2020.
- Attended one week FDP on 'AI, Machine Learning, IoT & Big Data Applications in Power Electronics and it's Allied Areas, Gokaraju Rangaraju Institute of Engineering and Technology, Telangana, June 2020.
- The Following subject are completed in the **Coursera Platform**
  a. AI for Everyone
  b. Advanced Converter Control Techniques
- Attended one week FDP on Implementation and Simulation of Electrical Engineering Applications using PLECS Tool, Vaagdevi College of Engineering, Telangana, May 2020.
- Attended five days GIAN course on Power Conditioning for PV Systems, NIT Warangal, Jan. 2018.
- Workshop attended on Role of IPR in Innovation Management for Academia-Industry Collaboration, NIT Warangal, India, Nov. 2018.
- Workshop attended on Real Time Simulations of Electrical Systems, VIT Chennai, 2015.
- Workshop attended on Rapid Prototyping Systems, NIT Warangal, 2014.
- Workshop attended on Wind-driven Generators (WGs), NIT Tiruchirappalli, Tamilnadu, India, 2013.

Courses studied at Master and PhD level

- Advanced Power Electronics
- Machine Modelling and Application

Honors/Awards/Prizes

- Got Best Paper award for the paper titled "Active and Reactive Power Control of Grid Tied Asymmetrical MLI based PV System with Reduced Switching Frequency," ***Lecture Notes in Electrical Engineering (LNEE), Springer***

List of Publications

Journals

- **Hareesh Myneni** and G. Siva Kumar, "Design Analysis and Switching Losses Reduction of Hybrid Shunt Compensator with Adaptive Control Scheme," ***International Transactions on Electrical Energy Systems (Wiley),*** vol. 31, no.1, Jan. 2021 (e12688).
- **Hareesh Myneni** and G. Siva Kumar, "Energy Management and Control of Single-Stage Grid Connected Solar PV and BES System," ***IEEE Transaction on Sustainable Energy,*** vol. 11, no.3, pp.1739-1749, July 2020.
- **Hareesh Myneni**, G Siva Kumar and D Sreenivasarao "Power Quality Enhancement by Hybrid DSTATCOM with Improved Performance in Distribution System," ***International Transactions on Electrical Energy Systems (Wiley),*** vol. 30, no. 1, Jan. 2020 (e12153).
- **Hareesh Myneni**, G Siva Kumar and D Sreenivasarao, "Cost Effective Single-phase DSTATCOM for Low Power Applications," ***Electric Power Components and Systems, Taylor & Francis***, vol 47, Issue No. 9-10, pp. 785-797, Nov. 2019.
- A Pranay Kumar, G Siva Kumar, D Sreenivasarao and **Hareesh Myneni**, "Model predictive current control of DSTATCOM with simplified weighting factor selection using VIKOR method for power quality improvement," ***IET Generation, Transmission & Distribution***, vol. 13, no. 16, pp. 3649-3660, Aug. 2019.
- Kavita Kiran Prasad, **Hareesh Myneni** and G. Siva Kumar, "Power Quality Improvement and PV Power Injection by DSTATCOM with Variable DC Link Voltage Control from RSC-MLC," ***IEEE Transaction on Sustainable Energy***, vol. 10, no. 2, pp. 876-885, April 2019.
- **Hareesh Myneni** and G. Siva Kumar "Simple Algorithm for Current and Voltage Control of *LCL*-DSTATCOM for Power Quality Improvement," ***IET Generation, Transmission & Distribution***, vol. 13, no. 3, pp. 423-434, Dec-2018.
- **Hareesh Myneni**, Amarnath C, G. Siva Kumar and D. Sreenivasarao, "Experimental implementation of 100 W Photovoltaic Panel with DC-DC Boost Converter for Maximum Power Point Tracking," ***The Journal of CPRI***, vol. 12, No. 4, Dec 2016.
- **Hareesh Myneni**, G. Siva Kumar and D. Sreenivasarao, "Dynamic dc voltage regulation of split-capacitor DSTATCOM for power quality improvement," ***IET Generation, Transmission & Distribution***, vol. 11, no. 17, pp. 4373-4383, 2017.

Book Series (Scopus)

- **Hareesh Myneni**, A Pranay Kumar, Somnath A Mandale and G. Siva Kumar, "Active and Reactive Power Control of Grid Tied Asymmetrical MLI based PV System with Reduced Switching Frequency," ***Lecture Notes in Electrical Engineering (LNEE), Springer,*** vol. 852, pp. 119 -134, May 2022. (https://link.springer.com/chapter/10.1007/978-981-16-9239-0_10)

Conferences

- Khuban Khan, Rajanikant Singh, **Hareesh Myneni** and Abdul Bhat,"Wireless EV Charging Through a Solar Powered Battery,"***IEEE International Conference on Sustainable Technology for Power & Energy Systems (STPES 2022),*** (Publication process) (Scopus indexed).
- Rao DV, Prusty BR, **Hareesh Myneni**, "Bright Sunshine Duration Index-Based Prediction of Solar PV Power Using ANN Approach," ***IEEE International Conference on Intelligent Controller and Computing for Smart Power (ICICCSP)***, pp. 1-5, Jul 2022, (Scopus indexed).
- **Rajanikant**, Hareesh Myneni and A H Bhat,"Three-Phase Voltage Controlled Active Bridge Rectifier based Resonant Wireless Power Transfer for EV Charging Applications,"***4th IEEE International Conference on Energy, Power & Environment (ICEPE-2022),*** (Scopus indexed).
- **Hareesh Myneni** and G. Siva Kumar, "A New Interactive Control Algorithm of DSTATCOM for Power Quality Improvement," *IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)*, Chennai, India, 2018. (Scopus indexed)
- **Hareesh Myneni**, G. Siva Kumar and D. Sreenivasarao, "Adaptive dc-link voltage regulation for DSTATCOM under load variations,"*IEEE Region 10 Conference (TENCON)*, Singapore, 2016, pp. 2909-2913. (Scopus and Web of Science indexed)
- **Hareesh Myneni**, G. Siva Kumar and D. Sreenivasarao, "Power quality enhancement by current controlled Voltage Source Inverter based DSTATCOM for load variations,"*IEEE IAS Joint Industrial and Commercial Power Systems / Petroleum and Chemical Industry Conference (ICPSPCIC)*, Hyderabad, India, 2015, pp. 182-188. (Scopus and Web of Science indexed)
- **Hareesh Myneni**, G. Siva Kumar and D. Sreenivasarao, "Power quality improvement by Shunt Active Filter for low cost applications," *International Conference on Computation of Power, Energy, Information and Communication (ICCPEIC)*, Melmaruvathur, India, 2015, pp. 0153-0158. (Scopus and Web of Science indexed)

Professional referees

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Personal Information

Father's Name:	Sri. M. Venkateswararao
Permanent Address:	H.No: 4-125/1 Avanigadda, Krishna District. Andhra Pradesh-521121, INDIA ☎ *+91-83-3397-6309*
Date of Birth:	04-08-1987
Sex:	Male

Marital Status:	Married
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Extra Information

1. Received meritorious scholarship from MHRD in M. Tech and Ph.D.
2. Got state rank in A.P.R.S entrance exam for FREE schooling upto 10^{th} class.
3. Got AIR-1218 (94.9 percentile) in GATE-2010.
4. Participated in SPL-7 Cricket Tournament, NIT Warangal, 2016.