
Dr. Miska Prasad, M. Tech (NIT-J), Ph.D. (NIT-J)

Associate Professor

Department of Electrical & Electronics Engineering

ACE ENGINEERING COLLEGE, Ankushapur (V),

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CURRICULUM VITAE

EDUCATION

✓ **Doctor of Philosophy, (Ph.D.), 2019**

Title: MODELING AND SIMULATION OF CUSTOM POWER DEVICES FOR MITIGATION OF VOLTAGE DISTURBANCES IN POWER SYSTEM

Area of specialization – Power Systems, Power Electronics, FACTS, Custom Power Devices, Renewable Energy

Department of Electrical and Electronics Engineering

Organization: **National Institute of Technology Jamshedpur (NIT-J), Jamshedpur**

✓ **Master of Technology, (M.Tech), 2013**

Area of specialization – Power Systems, Power Electronics, FACTS, Custom Power Devices, Renewable Energy

Department of Electrical and Electronics Engineering

Organization: **National Institute of Technology Jamshedpur (NIT-J), Jamshedpur**

✓ **Bachelor of Engineering, (B.E), 2010**

Department of Electrical and Electronics Engineering

Organization: **GITAM UNIVERSITY, VIZAG**

TEACHING EXPERIENCE

- ✓ Assistant Professor in Electrical & Electronics Engineering Department in **ACE Engineering College, Ghatkesar**, from 3rd August 2017 to till date.
- ✓ Assistant Professor in Electrical & Electronics Engineering Department in **Chouksey Engineering College, Bilaspur (C.G)**, from 18th July 2013 to 17th January 2014 (6M)
- ✓ Lecturer in Electrical & Electronics Engineering Department in **RTC Institute of Technology, Ranchi, Bihar** from 15th July 2010 to 20th September 2011(1Y2M).

ADMINISTRATIVE EXPERIENCE

- ✓ Heading the Department of EEE, ACE Engineering College, 22 March-2020
- ✓ Member of Academic Council of the Institute.
- ✓ Chairman, Board of Studies for EEE Department.
- ✓ Member of Discipline Committee of the Institute.

SUBJECTS TAUGHT

- ✓ Power System-II
- ✓ Power Quality
- ✓ Power System Operation and Control (PSOC)
- ✓ Extra High Voltage AC Transmission System (EHVAC)
- ✓ Utilization of Electrical Energy (UEE)
- ✓ Non-Conventional Energy Sources
- ✓ HVDC and FACTS Devices
- ✓ Electrical Circuit Analysis-I

RESEARCH GUIDANCE

Guidance at under graduate level:	No. completed	No. in Process
	07	02

FDP/SHORT TERM COURSES AND WORKSHOPS CONDUCTED

- **One day Webinar on Introduction to Electric Vehicles on 22 Jan-2021**
- **A one day workshop on Interfacing Sensor with Arduino on 16-02-2021**

SOFTWARE EXPLOSURE

Operating System: Windows 2000/XP/2003/2007 and Windows 2010

Electrical Software's: MATLAB, PSPICE, SCILAB, PYTHON

RESEARCH PUBLICATIONS

SPONSORED PROJECT:

Modernization of Electrical Systems Simulation Lab

MODROB Proposal got accepted by AICTE and Sanctioned Rs 607843.00 (Completed)

20-07-2020

BOOKS

- [1] **Miska Prasad**, “**Performance of D-STATCOM for Voltage Sag and Swell Mitigation**”, LAP Lambert Academic Publishing, International Book market Service Limited, ISBN: 978-613-9-89760-5, pp.1-51, Aug-2018.

Book Chapter: Chapter-29

[1] Miska Prasad, “Comparison Of 3-Leg, 4-Leg And 6-Leg Topologies Of Renewable Energy Fed Impedance Source Inverter Based Dynamic Voltage Restorer” Advances in Smart Grid Automation and Industry 4.0, Volume-693, **Lect. Notes Electrical Eng., SPRINGER**, ISBN: 978-981-15-7674-4

[2] **Miska Prasad**, Yogesh Kumar Nayak, Rajesh Ranjan Shukla, Rajagopal Peesapati, Sudhansu Mehera, Design and Analysis of Renewable Energy fed UPQC for Power Quality Improvement, Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid : Modeling, Control and Optimization (1st ed. 2022), Springer Verlag, Singapore, ISBN: 2199-8582,

- [1] **M. Prasad**, A.K Akella, and “Design and Analysis of Solar Photovoltaic fed Z-Source Inverter based Dynamic Voltage Restorer,”*Scientia Iranica, Transaction D: Computer Science & Engineering and Electrical Engineering*, Vol-27, issue 6. pp. 3190-3203. 2020, **ISSN: 1026-3098.....SCIE**
- [2] **M. Prasad**, Almoataz Youssef Abdelaziz, Ashok Kumar Akella, Comparative study of Different Topologies of Solar Photovoltaic fed Impedance-Source Inverter based Dynamic Voltage Restorer, *Journal of Engineering Research*, 28-09-2021, <https://doi.org/10.36909/jer.10023>, **ISSN:2307-1885.....SCIE**
- [3] Pallavi Choudhary, Ashok Kumar Akella, **M. Prasad**, **Tilt angle optimization for maximization of solar irradiance for a PhotoVoltaic panel for Chandil, Jharkhand** *Journal of Engineering Research*, 2022/5/22, **ISSN:2307-1885.....SCIE**
- [4] **Saibal, Deepak**, A.K Akella, Almoataz Youssef Abdelaziz , **M. Prasad**, “A novel robust model reference adaptive MPPT controller for Photovoltaic systems,”*Scientia Iranica, Transaction D: Computer Science & Engineering and Electrical Engineering*, Vol-27, issue 6. pp. 3190-3203. 2020, **ISSN: 1026-3098.....SCIE**
- [5] **M. Prasad** & A.K Akella, “Comparison of Solar Photovoltaic fed Z-Source Inverter based UPQC with Conventional Inverters,” *Wulfenia Journal*, Vol.24, No.1, pp.185-201, January-2017.....**SCIE**
- [6] **M. Prasad** & A.K. Akella “Voltage Sag Characteristics in Power Distribution System under Fault Conditions” *Energy Education Science and Technology Part A: Energy Science and Research*, ISSN: 1308-772X, Sila Science, Vol.33, No.6, 3177-3192, 2015. (**SCIE, 2012 indexed data base**), (**Scopus**), **ISSN: 1561-882X**
- [7] **M. Prasad** and A.K Akella, Voltage and Current Quality Improvement by Solar Photovoltaic fed ZSI-DVR, **Computer Proceedia, Elsevier**, Vol.125, pp.434-441, 2018, <https://doi.org/10.1016/j.procs.2017.12.057>, **ISSN: 1877-0509 (SCOPUS)**
- [8] **M. Prasad** & Ashok Kumar Akella, “Comparative Analysis of Solar Photovoltaic VSI, CSI and ZSI based UPQC for Mitigation of Voltage Sags and Harmonics,” **International Journal of Renewable Energy Research (IJRER)**, Vol.7, No.2, January-2017, pp.668-675. (**ESCI, Scopus**), **ISSN: 1309-0127**

- [9] **M. Prasad** and A.K Akella, Voltage Sag, Swell and Harmonics Mitigation by Solar Photovoltaic fed ZSI based UPQC, **International Journal of Renewable Energy Research (IJRER)**, Vol.7, No.4, pp.1646-1655, July-2017, (ESCI, Scopus) ISSN: **1309-0127**
- [10] **M. Prasad** & A.K. Akella “Performance of DSTATCOM Control Scheme for Voltage Quality Improvement” Australian Journal of Applied Science and Research”, ISSN: 0976-4348, Vol.10, No.15, pp.315-324, 2016. (Scopus)
- [11] **M. Prasad**, & A.K. Akella “Comparison of DSTATCOM Performance for voltage Sag Alleviation”, Indonesian Journal of Electrical Engineering and Computer Science”, ISSN: 0019-0578, 4(2), pp.305-316, 2016. (Scopus)
- [12] **M. Prasad** & A.K. Akella “Performance Evaluation of Two Different Inverter Configurations of DVR for Mitigation of Voltage Disturbances”, International Journal of Electrical Engineering Systems and Research, ISSN: 2212-6716, 6(2), pp.139-148, 2016. (Scopus)
- [13] **M. Prasad** and A.K Akella, “Performance Evaluation of Three Different Inverter Configurations of DVR for Mitigation of Voltage Events,” Indonesian Journal of Electrical Engineering and Informatics (IJEI), Vol.4, No.4, pp.225-239, 2016, 10.11591/ijeie.v4i4.237, (Scopus):issn no: **2089-3272**
- [14] **M. Prasad** and A.K Akella, Comparative Analysis of Solar Photovoltaic fed Z-Source Inverter based UPQC for Power Quality Enhancement, U.P.C Scientific Bulletin: Series C Electrical engineering and computer science, Vol.79, No-3, pp. 123-140, August, 2017 (Scopus), ISSN: **1454-234X**
- [15] **M. Prasad** and A.K Akella, “Mitigation of Power Quality Problems Using Custom Power Devices: A Review,” Indonesian Journal of Electrical Engineering and Informatics (IJEI), Vol.5, No.2, pp.207-235, August-2017, 10.11591/ijeie.v5i3.296, (Scopus), issn no/; **2089-3272**
- [16] **M. Prasad** & A.K. Akella “Power Quality Improvement by Six-Leg DSTATCOM in Three-Phase Four-Wire Distribution System” Advances in Engineering: an International Journal, Vol.1, No.1, pp. 13-22, 2016. ISSN:
- [17] **M. Prasad** & A.K Akella, “ZSI based DVR for Power Quality Enhancement in Power Distribution System,” International Journal for Technological Research in Engineering, Vol.3, No.9, pp.2240-2244, May-2016.

- [18] **M. Prasad & A.K Akella**, “Modeling and Simulation of SRF and PI controlled DSTATCOM for Power Quality Enhancement,” *International Journal of Technochem Research*, Vol.2, No.2, pp.141-150, 2016. 2395-4248 (E)

International Conferences Papers

- [1] **Miska Prasad and Yogesh Kumar Nayak** “Performance of Six-Leg Solar Photovoltaic based ZSI-DVR” **IEEE International Conference on Computational Intelligence for Smart Power System and Sustainable Energy (CISPSSE-2020), July 29-31, 2020, Government College of Engineering, Keonjhar, Odisha, India: 10.1109/CISPSSE49931.2020.9212220**
- [2] **Miska Prasad, J. MuniChandra Shekar & A.K. Akella**, “Performance Comparison of Voltage Swell Characteristics in Power Distribution System” **2018 IEEE International Conference on Current Trends Towards Converging Technologies (ICCTCT-2018), 1-3 March 2018, SVS College of Engineering, India, pp.1-6, 29-Nov-2018, 10.1109/ICCTCT.2018.8550838**
- [3] **Miska Prasad, J. MuniChandra Shekar & A.K. Akella**, “Voltage Swell Minimization by Solar Photovoltaic fed Impedance Source Inverter based DVR” **2018 IEEE International Conference on Current Trends Towards Converging Technologies (ICCTCT-2018), 2018, 1-3 March 2018, SVS College of Engineering, India, , pp.1-7, 29-Nov-2018, 10.1109/ICCTCT.2018.8550844**
- [4] **M. Prasad and A.K. Akella**, “Performance Analysis of Solar Photovoltaic fed Z-Source Inverter based Series Connected Custom Power Device” **Proceedings of IEEE International Conference on Power and Embedded Drive Control, SSN College of Engineering, Chennai, 16-18th March, 2017, pp.303-307.**
- [5] **Miska Prasad & A.K. Akella**, “Voltage and Current Quality Improvement by Solar Photovoltaic fed ZSI-DVR” **6th International Conference on Smart Computing and Communications, ICSCC 2017, 7-8 December 2017, NIT Kurukshetra, India.**
- [6] **Miska Prasad**, “Comparison of Voltage Sag and Swell Characteristics in Power Distribution System” **International conference on Emerging Trends for Smart Grid Automation and Industry 4.0, Electrical and Electronics Department, Birla Institute of Technology, ITECSGAI4.0, 5 - 7th December, 2019, Ranchi, India(paper will be Published in Springer: Lecture Notes on Electrical Engineering)**

- [7] **Miska Prasad, J. MuniChandra Shekar & D. Kailash Prabhu**, “ZSI based DVR to Enhance the Performance of a Hybrid Power System using PI Controller” International Conference on Intelligent Computing Smart Communication Technologies (ICSCT-2019), 26-27 July 2019, Anurag Group of Institution, India **(will be Published in Springer: Lecture Notes on Data Engineering and Communications Technologies)**
- [8] **D. Kailash Prabhu and Miska Prasad**, “ZSI based DVR to Enhance the Performance of a Hybrid Power System using PI Controller” **International** Conference on Intelligent Computing Smart Communication Technologies (ICSCT-2019), 26-27 July 2019, Anurag Group of Institution, India **(Accepted, Presented and will be Published in Springer: Lecture Notes on Data Engineering and Communications Technologies)**
- [9] **Miska Prasad, J. MuniChandra Shekar & A.K. Akella**, “Comparison of Solar Photovoltaic fed VSI, CSI and ZSI based DVR” **Proceedings of 3rd International Conference on Innovation in Power Electronics Control and Systems (IPECS-2017), 18-19 December 2017, MAM College of Engineering, Tiruchirappalli, India.**
- [10] **M. Prasad & A.K.Akella** “Modeling and Simulation of PWM switched Autotransformer for voltage sag mitigation to improve power quality” **International Conference on Status of Science & Technology in Chhattisgarh State, Bhilai Institute of Technology, Durg, 19-20th March, 2015.**
- [11] **M. Prasad & A.K. Akella**, “Voltage swell mitigation by six-leg DSTATCOM in three-phase four-wire distribution system” **Proceedings of 2nd International Conference on Advances in Steel, Power, and Construction Technology, OP Jindal University, Raigarh (C.G), 17-19th March, 2016.**
- [12] **Miska Prasad & A.K. Akella**, “Comparative Analysis of PV fed ZSI and VSI based Dynamic Voltage Restorer” **Proceedings of 3rd International Conference on Advances in Steel, Power, and Construction Technology, OP Jindal University, Raigarh (C.G), 22-23th March, 2017.**

National Conference Paper

- [1] **M. Prasad**, “Modeling and Simulation of Dynamic Voltage Restorer for Mitigation of voltage sag/swell to improve the power quality” a **National Conference VIMARSH-2013 organized by Chowksey Engineering College, Bilaspur (C.G) on 12-13th Sept-2013.**

FDP/SHORT TERM COURSES AND WORKSHOPS ATTENDED

- One week National Level FDP and online training on SCILAB-an open Source Substitute for MATLAB jointly organized by **JNTUH college of Engineering, Sultanpur and Spoken Tutorial Project IIT Bombay** from 25th may to 30th may 2020.
- Five day online FDP on Recent Trends in Power Electronics and Energy storage System organized by Department of Electrical & Electronics Engineering Vardhaman college of Engineering during 10th -14th june 2020.
- Three-Days National level online FDP on IoT and its Applications, held on 12th to 14th june 2020, organized by Department of Computer Application, MITS.
- Participated in the role of Aurdino in real Applications, webinar conducted on 12th june 2020 by the Department of Electrical & Electronics Engineering, Narasurs Sarathy Institute of Technology, Salem.
- participated in a Webinar on““Tools for Documentation: Conference, Journal and Thesis Writing”” Organized by EEE Department, Vaagdevi College of Engineering on 13th June 2020
- Participated in webinar on **Machine Learning e-workshop** during 27th to 29th may 2020, organized by Brainovision.
- Participated I a webinar on Science and Technology Education for the new Prosperous, happy and Healthy India on 28th may 2020, IEEE ASCET.
- Participated in webinar on “Employability Skills in Curriculum Design” on 26th April 2020, organized by Audisankara College of Engineering and Technology.
- Participated in webinar on Python for Beginners on 19-05-2020, organized by Brainovision.

- Workshop on “High Performance Computing”, organized by **GITAM UNIVERSITY**, Visakhapatnam (A.P) on 21st July 2009.
- Workshop on “Fundamentals of Autonomous Robotics” organized by **TECHNOPHILIA** at **IIT Kharagpur** in association with Kshitij on 30th January to 1st February, 2009.
- Workshop on “How to publish a technical paper with **IEEE**” **organized by Jadavpur University** on 8th August, 2014.
- Workshop on “Regulation and Policy for Power Sector Reforms in India-RPPSRI-2014, organized by **Electrical & Electronics Engineering Department, National Institute of Technology, Jamshedpur** on 12-13th June 2014.
- Short Term Course on “Aesthetics of Technical Writing: LaTeX” organized by **Department of Computer Science & Engineering, National Institute of Technology, Jamshedpur** on 10-11th January, 2015.
- **Second IEEE Workshop** on “Advanced MATLAB Applications-ADMAT 2015” organized by **IIT GUWAHATI** on 11-12th April, 2015.
- One Week Short Term Course on “Emerging Trends and Future Challenges in Power System Operation and Control-(ETFCPSOC), organized by **Department of Electrical & Electronics Engineering, National Institute of Technology, Jamshedpur**, on 20-24th June, 2016.
- One Day Workshop on “Practical Power Flow Controller Brings Benefits for Power Electronics to the Grid” organized by **Department of Electrical & Electronics Engineering, National Institute of Technology, Jamshedpur**, on 9th November, 2015.
- One Week Short Term Course on “Emerging Trends and Challenges of Modern Power Systems (ETCMPS 2016)” organized by **Department of Electrical Engineering, National Institute of Technology, Durgapur** on 5-9th July, 2016.
- Short Term Course on “Sustainable Development and Advances in Power Electronics-(SDAPE-2016)”, organized by **Department of Electrical & Electronics Engineering, National Institute of Technology, Jamshedpur** on 12-14th November, 2016.

FELLOSHIPS/ACHIEVEMENTS

- MHRD Fellowship, NIT Jamshedpur (2011-2013)
- TEQIP Fellowship, NIT Jamshedpur (2013-2017)
- GATE, 2010, 2012

JOURNALS REVIEWER

- [1] International Journal of ISA Transaction (**SCI Journal**)
[2] Journal of Electrical Engineering and Technology (**SCI Journal**)

JOURNAL EDITOR

SCIREA Journal of Electrical Engineering

<http://www.scirea.org/journal/EditorialBoard?JournalID=47000#4366>

PERSONAL DETAILS

Name - **Dr. Miska Prasad**

Father's Name - Mr. Miska Narasinga Rao

Mother's Name - Smt. Miska Varalaxmi

Nationality - Indian

Sex - Male

Language known- Telugu, English, Hindi, Bengali

I hereby declare that the information is true to best of my knowledge and belief.

Date : 25-06-2022
Place : Secunderabad



(Dr. M. Prasad)