Name: Dr. V Madhusudhan

Designation: professor Department: EEE Mail I'd: <u>vellala.madhusudhan60@gmail.com</u>



Experience (in years): Teaching: 32 Research: 16y Others(if any, specify): Nil

1. Educational / Technical qualifications:

| S.No | Level (UG / PG / Ph.D) | Year of passing | Specialization |
|------|---------------------------|-----------------|----------------------------|
| 1 | Ph.D | 2007 | Power system reliability |
| 2 | M.Tech | 1984 | Electrical power systems |
| | | | engineering |
| 3 | B.Tech | 1982 | Electrical and electronics |
| | | | engineering |

2. Teaching and Learning:

2.1. Teaching Interests: power systems and electrical machines

- 2.2. Novel Teaching & Learning Techniques adopted: ppt, bbt
- 2.3. Involvement in curriculum updating / Design: member of board of studies for autonomous engineering colleges in Telangana and Andhra Pradesh states

3. Co-curricular and Extra-Curricular Activities

- 3.1. Interests and Hobbies: more interaction with students and motivating them for learning advances in the area of electrical engineering
- 3.2. CCA/ECA Organized: various activities like blood donation camps, technical and cultural fests conducted
- 3.3. CCA/ECA participated: presented papers in national and international seminars and conferences.
- 3.4. Counseling and Mentoring Activity: counselled students during every semester of the circular and given valuable suggestions for both UG and PG students
- 3.5. Committees involved in:

Department level: acted as member for various committees like project review and ethics,

departmental student association committee etc.

Institute Level: member of college academic committee, anti-ragging committee, grievance and redressal committee etc.

4. Conference / Workshop / Seminar / Guest Lectures:

4.1. Conducted:

1. A National-level Students Conference ELIVISION2K4 conducted on 08-01-2004 at KSRMCE, Kadapa.

2. National level student symposium TECH FEST 2K9 conducted on 16-02-2009 at KORMCE, Kadapa.

3. National level student symposium TEXPLOSION 2K12 conducted on 28-29th Jan-2012 at MRIT, Secunderabad.

4. National level students Technical Paper Presentation TECHQUEST 2K12 conducted on 12-13th Oct2012 at MRIT, Secunderabad

4.2. Attended:

1. Attended winter school on "RELIABILITY ENGINEERING AND APPLICATIONS TO POWER SYSTEMS", from 11-12-2000 to 23-12-2000 at JNTUCE, Anantapur.

2. National Work Shop "DART-2005" at JNTUCE, Anantapur from 28th – Oct to 30th Oct-2005.

3. Workshop on "High voltage testing software perceptive" at Institute of Aeronautical Engineering, Hyderabad on 30-12-2010.

4. Workshop on "Power Electronics Applications to Power Quality" at Mallareddy Engineering College, Hyderabad during 12-13 Feb-2011.

5. "Composite Power System Reliability Analysis Using System State Duration Sampling Approach" B.V.Prasanth, V.Madhusudhan, V.Sankar, K.J.Pillai, at National Institute of Occeanography,Goa,India,2-4 November 2006, pp38, 30th National System Conference (NSC2006).

6. "Composite Power System Reliability Analysis Using State Transition Sampling Approach" B.V.Prasanth, V.Madhusudhan, V.Sankar, K.J.Pillai, at Indian Institute of Technology ,Bombay, Mumbai ,India, 16-17 December 2005, pp8, 29th National System Conference (NSC-2005) on System Engineering Approach to Sustained Growth.

7."Reliability Analysis of Inter Connected Power Systems Using State Space Decomposition" V.Madhusudhan, V.Sankar, K.J.Pillai, at Gayatri Vidya Parishad College of Engineering, Visakhapatnam, India. 27-29 December 2003, pp114-117, National Seminar on Emerging Trends in Power System Operation and Control.

8. "Reliability Evaluation of Generating Systems" V.Madhusudhan, V.Sankar, K.J.Pillai, at PSG College of Technology, Coimbatore, India, 13-15 December 2001, pp470-474, 25th National System Conference (NSC-2001) on System Engineering Approach.

9. "Personal Computers for Real Time Control of Power System Distribution Networks" K.Ramesh Reddy, V.Madhusudhan, KSN Reddy, at Institution of Engineers Local Center, Kadapa, Andhra Pradesh, India, on 15th March,2000,pp34, All India Seminar on Information Technology.

"An Overview of Supervisory Control And Data Acquisition-SCADA" K.Ramesh Reddy,
V.Madhusudhan, KSN Reddy, at Institution of Engineers Local Center, Kadapa, Andhra
Pradesh, India, on 15th March, 2000, pp33, All India Seminar on Information Technology.

11. "Reliability Evaluation Six phase Systems" V.Madhusudhan, K.RameshReddy, K.J.Pillai, V.Sankar, at Regional Engineering College, Warangal, Andhra Pradesh, India, on 14-15 February,1998,pp1.32-1.39, National Conference on Trends and Challenges in Large Interconnected Power Systems, TRIPS'98.

12."Micro Computer Based Monitoring of small Hydro Power Plants" Dr.K.SoundarRajan, V.Madhusudhan, K.Ramesh Reddy, at Coimbatore Institute of Technology, Coimbatore, India, on 3-4 December,1993,pp86-98, National Seminar on Small Hydro Power projects, CIVSEM'93

5. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures:

| Sl. | Title of Lecture / | Title of Conference / | Organized by |
|-----|--|--|--|
| No | Academic Session | Seminar etc. | |
| 1 | Given Invited Talk at JNTU CEP during on Composite power systems reliability evaluation | TEQIP workshop 26-27 July 2013 under TEQIP-II | JNTUCEP |
| 2 | chairperson in National level Technical symposium "BHASWARA-2012" | National level Technical symposium "BHASWARA- 2012 | And Technology, Keesara, RR District. 14 th -15 th March 2012 |
| 3 | Acted as Member, Advisory Committee | International Journal on Computing, Communications & Systems (IJCCS) | Malla Reddy College of Engineering and Technology, Secunderabad |
| 5 | Acted as judge for poster presentations on Robotics | Robotics in "MEDHA 2012" | Malla Reddy Engineering College for Women, Hyderabad |
| 6 | Session chair on smart Energy 21-22 nd September 2013 | IEEETheInternationalConferenceonAdvancedComputingTechnologiesICACT-2013 | Annamacharya Institute of Technology and Sciences Rajampet |
| 7 | Guest Lecture | Reliability Applications of Engineering Systems | Institution of Engineers (India), Kadapa Local Centre |
| 8 | Guest Lecture | Embedded Systems | Malla Reddy College of Engineering and Technology, Secunderabad |
| 9 | Guest Lecture | Reliability applications for Enhanced power quality | Mallareddy Engineering college, Secunderabad |
| 10 | Guest Lecture | Emerging Trends in Electrical Engineering | Sri Sai Institute of Technology and Sciences, Rayachoty, Kadapa DT. |
| 11 | Guest Lecture | Composite Power System Reliability | Sri Sai Institute of Technology and Sciences, Rayachoty, Kadapa DT. |
| 12 | Guest Lecture | Reliability of Distributed Systems | Sri Sai Institute of Technology and Sciences, Rayachoty, Kadapa DT. |

| 13 | Guest Lecture | Introductory Concepts of Power Quality for Enhanced System Reliability' | |
|----|-----------------|---|--|
| 14 | Invited Lecture | Recent Trends in Electrical Engineering" during 6-8 Sept- 2012 | Malla Reddy Engineering College for Woman |
| 15 | Guest Lecture | Reliability in Power Engineering | Geethanjali College of Engineering And Technology, Keesara, RR District. |
| 16 | Guest Lecture | Monte Carlo Simulation Methods for Reliability Applications to Power Systems Engineering | JNTU College of Engineering, Pulivendula |

5.2. Articles/Chapters published in Books: Nil

5.3. Books published as single author or as editor: Nil

- 5.4. Projects Guided:
 - a) UG: 40
 - b) PG:20
- 5.5. Research Interests: power systems engineering
- 5.6. Ph.D students :
 - a) Enrolled: 8
 - b) Submitted: Nil
 - c) Awarded: Nil
- 5.7. Papers published in reviewed journals:

| S.No | Title of the Paper | Journal Name Vol.No. PP | ISBN/IS SN No. | Impact Factor/ Citation Index | National/ International |
|------|---|---|------------------------|--|----------------------------|
| 1 | MI Control of MLI STATCOM for Sag and well Enhancement in Power Distribution SystemPp2279-2285 | International Electrical Engineering Journal (IEEJ) | ISSN: 2078- 2365 | - | International |
| 2 | FRC Based IPC Stratagem for MLI- DSTATCOM compensating unbalances in Power Distribution Network Hydrothermal System Using Artificial Bee Colony Algorithm" | International Journal of Advance Research in Science and Engineering (IJARSE) | ISSN- 2319- 8354 | - | International |
| 3 | Pretend Design of a 9- | International Journal of Engineering | ISSN : 2277- | 4.116 | International |

| | Level & 27-Level MLI- DSTATCOM for Reactive Power Compensation in PS pp-128-140 | Sciences and Research Technology (IJESRT) | 9655 | | |
|----|---|--|--------------------------------------|-------|---------------|
| 4 | SRM Speed control with various Converter Topologies pp-4939-4951 | International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, (IJAREEIE) | ISSN: 2320 – 3765 | - | International |
| 5 | A Variable Speed PFC Converter for Brushless SRM Drive | , International Journal of Cybernetics & Informatics | ISSN: 2320 – 8430 | - | International |
| 6 | Fortification of Voltage Recompense by Scheming of CMHBI – DSTATCOM pp- 90-93 | International Journal of Recent Advances in Engineering & Technology (IJRAET) | ISSN (Online): 2347 – 2812 | - | International |
| 7 | Reduction in Commutation Torque Ripple in Sensor less BLDC Motor Fed by Pvcells using Fuzzy Logic Controller pp-605-611 | International Journal of Research (IJR), | e-ISSN : 2348 - 6848, | - | International |
| 8 | A New Power Factor Correction Method using an Inverter Fed Interior Permanent Magnet (IPM) Motor pp-468-473 | International Journal & Magazine of Engineering, Technology, Management and Research (IJMETMR), | ISSN : 2348 – 4845 | 2.625 | International |
| 9 | A New Control Scheme for PWM of 4-Leg Voltage Source Inverter Fed Unsymmetrical Two Phase Induction otorpp-10291-10299 | International Journal of Scientific Engineering and Technology Research (IJSETR) | ISSN 2319 - 8885 | - | International |
| 10 | Modified DTC Scheme using Fuzzy Logic Control for a FSTPI Fed Induction Motor Drive pp-6536-6542 | International Journal of Scientific Engineering and Technology Research (IJSETR) | ISSN : 2319 – 8885 | - | International |
| 11 | Modeling of 5-Level | International Journal | ISSN : | - | International |

| | CHB as DSTATCOM for compensation of Power Quality Issues | of Electrical and Electronics Engineers (IJEEE), | 2321- 2055 | | |
|----|--|--|------------------------|-------|---------------|
| | pp-70-79 | | | | |
| 12 | Implementation of Multilevel VSC Topologies for DSTATCOM pp-8714-8723 | International Journal of current Research | ISSN: 0975- 833X | 3.845 | International |
| 13 | Design of Voltage Controlled DSTATCOM for Power Quality Improvement and Energy Conservation | International Journal of Advanced Engineering Science and Technological Research (IJAESTR) | ISSN:2 321- 1202 | - | International |
| 14 | Power Quality Improvement By Using Flexible-DSTATCOM by Mitigating the Effects of Faults pp40-46 | World Journal of Engineering Science | ISSN:2 320- 7213 | - | International |
| 15 | Performance Studies of Three–Phase Cascaded H-Bridge and Diode- Clamped Multilevel inverters pp-5418-5423 | International Journal of Engineering and Computer Science | ISSN:2 319- 7242 | - | International |
| 16 | Performance Analysis of 12&24 Pulse AC- DC Converter fed vector controlled Induction motor Drives (VCIMD) PP-368-374 | International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences, IJ-ETA | ISSN 0974- 3588 | - | International |
| 17 | Power flow studies and Power Oscillation damping in a large Power System Using FACTS Devices pp-179-182 | International Journal of Computer Applications In Engineering, Techno logy and Sciences, IJ-CA-ETS | ISSN: 0974- 3596 | - | International |
| 18 | Design aspects and analysis for higher order harmonic mitigation of converter feeding a Vector controlled switched reluctance motor drives pp-411-415 | International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences,IJ-ETA- ETS | ISSN 0974- 3588 | - | International |
| 19 | Implementation of performance analysis of | International Journal on Intelligent | | - | International |

| | | 18-Pulse AC-DC converter FED switched reluctance Motor Drives to Robotics pp-1-5 | Electronic Systems | | | |
|---|----|--|---|-----------------------|---|---------------|
| | 20 | Performance Analysis of 12&18 Pulse AC- DC Converter fed vector controlled Permanent Magnet Synchronous Motor Drives pp-409-413 | International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences, IJ-ETA- ETS | ISSN 0974- 3588 | - | International |
| 2 | 21 | Composite Power System Reliability EvaluationUsingMonte carlo Methods- A Comparative Study pp-39-49 | I-manager's Journal on Future Engineering and Technology | | | national |

5.8. Papers presented at National / International Journals:

| S.No | Title of the Paper | Names of the Conference/ Seminars | National/ International | Period |
|------|--|--|----------------------------|--------|
| 1 | Evaluation and Enhancement of Reliability of Electrical Distribution System in the presence of Dispersed Generation | International conference on Signal Processing, Communication, Power and Embedded System (SCOPES) | International | 2016 |
| 2 | Design Aspects and Analysis for higher order harmonic mitigation of power Converter feeding a vector controlled Induction Motor Drives pp-282-287 | IEEE-ICAESM 2012 International conference | International | 2012 |
| 3 | Comparison of Single -Phase Cascaded and Multilevel DC link Inverter with Pulse width Modulation Control Methods pp-229-235 | 2 nd International conference on Sustainable Energy and Intelligent Systems (SEISCON 2011) | International | 2011 |
| 4 | Design and Implementation of Power Converters for Wind Energy Conversion System | 2 nd International conference on Intelligent Information System and Management, IISM-2011 | International | 2011 |
| 5 | Implementation of Performance analysis of 18 pulse AC-DC converter fed switched reluctance motor drives to robotics Pp-175-178 | International Conference on Emerging trends in robotics and communication technologies, INTERACT- | International | 2010 |

| | | 2010 | | |
|----|---|--|---------------|------|
| 6 | Wavelet based protection schemes for teed transmission circuits pp-192-197 | International Conference on Communication, Computation, Control and Nano Technology. | International | 2010 |
| 7 | Power flow and voltage analysis of power transmission system using static var compensator pp-871-874 | International Conference on Communication, Computation, Control and Nano Technology. | International | 2010 |
| 8 | Reliability Analysis of Composite Power Systems Using Poisson's Distribution pp-28 | 2 nd International Conference on Quality, Reliability and Information Technology, ICQRIT- 2003. | International | 2003 |
| 9 | Composite Power System Reliability Analysis Using System State Duration Sampling Approach | National System Conference (NSC-2006) | national | 2006 |
| 10 | Composite Power System Reliability Analysis Using State Transition Sampling Approach pp-8 | 29 th National System Conference (NSC-2005) on System Engineering Approach to Sustained Growth | National | 2005 |
| 11 | Reliability Evaluation of Generating Systems pp-470-474 | 25 th National System Conference (NSC-2001) on System Engineering Approach | national | 2001 |
| 12 | Reliability Evaluation Six phase Systems pp-1.32-1.39 | National Conference on Trends and Challenges in Large Interconnected Power Systems, TRIPS'98 | National | 1998 |
| 13 | Reliability Analysis of Inter Connected Power Systems Using State Space Decomposition | National Seminar on Emerging Trends in Power System Operation and Control. | National | 2002 |
| 14 | Personal Computers for Real Time Control of Power System Distribution Networks | National Seminar at Institution of Engineers Local Center, Kadapa | National | 1998 |
| 15 | An Overview of Supervisory Control And Data Acquisition- SCADA | National Seminar at Institution of Engineers Local Center, Kadapa | National | 1998 |
| 16 | Micro Computer Based Monitoring of small Hydro Power Plants | National Seminar on Small Hydro Power projects, CIVSEM'93 | National | 1993 |

5.9. Sponsored research Projects: Nil

| S.No | Title | Agency | Period | Grant amount | Ongoing / Completed |
|------|-------|--------|--------|--------------|------------------------|
| | | | | | |

5.10 Consultancy Projects: nil

| S.No | Title | Agency | Period | Sanctioned Amount | Ongoing / Completed |
|------|-------|--------|--------|----------------------|------------------------|
| | | | | | |

6 Awards / Honors received:

- 1. Honorary Secretary on kadapa local center of Institute of Engineering (IE(I)) of India for the session 2016-17 & 2017-18
- 2. Member of Executive committee for the Electrical Division of Institute of Engineering (IE(I)) of India for the session 2014-15 & 2015-16
- 7 Motto: to involve actively research activity, guiding and encouraging students to develop innovative thinking that suits the present day's industry