

Name: Dr. K.B.Madhu Sahu

Designation: Professor & Director R&D

Department: EEE

Date of Birth: 04.04.1963

Father Name: K.B.Narasimhulu (Late)

Mother Name: K.B. Venkatamma

Address: Plot No: 03, Sai Keerthi Homes, Bondilipuram,Srikakulam-532001

Mobile Number: 9440955587, 9573580501

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Date of Joining in the Institution: 27.06.2002

Academic Excellence:



| QUALIFICATION | BOARD / UNIVERSITY | DIVISION | YEAR |
|---------------|--|--------------|------|
| Ph.D | JNTU College of Engg. JNTUH, HYDERABAD. | Awarded | 2011 |
| M.E | AU College of Engg. Andhra University, Visakhapatnam | FIRST Class | 1988 |
| B.E | GITAM, Andhra University, Visakhapatnam | Second Class | 1985 |

Total Years of Experience: 29 Years

| Period | | Organization/Institution | Designation |
|------------|------------|--|------------------------|
| 09.01.2019 | Till now | Aditya Institute of Technology and Management, Tekkali | Director R&D |
| 07.09.2012 | 08.01.2019 | Aditya Institute of Technology and Management, Tekkali | Principal |
| 16.07.2010 | 06.09.2012 | Aditya Institute of Technology and Management | Dean (Academics) |
| 05.04.2005 | 15.07.2010 | Aditya Institute of Technology and Management | Vice-Principal |
| 27.06.2002 | 04.04.2005 | Aditya Institute of Technology and Management | Professor & HOD |
| 2.11.1998 | 26.06.2002 | GMR Institute of Technology, Rajam | Assoc. Professor & HOD |
| 1.08.1997 | 31.10.1998 | K.L.College of Engineering, Vaddeswaram, Guntur | Asst. Professor. |
| 8.10.1988 | 31.07.1997 | S.V.H. College of Engineering, Machilipatnam | Lecturer |

Areas of Interest:

- (1) Control Systems
- (2) Power Systems / High Voltage Engineering
- (3) Circuit Analysis

Details of Books Publications:

- (1) Co-Author of Text Book: "Networks & Lines", (PPH, HYD, 1995)
- (2) Author of Text Book, "Electro Magnetic Fields", Scitech Publications (India), Pvt.Ltd, 2005.
- (3) Author of Text Book : "Basic Electrical Engineering", Scitech Publications (India) Pvt. Ltd, 2007.

Guidance of Academic Projects:

- i) Doctoral Projects : 01 (Guide)
- ii) Masters Projects : 24 (P.G)
- iii) Bachelor Projects : 54 (U.G)

Other Responsibilities:

- PRINCIPAL
- Chairman- Academic Council
- AICTE & TEQIP, IIC Committee Chairman
- Director R&D

Member ships with Professional Bodies:

- Institution of Engineers (INDIA); F-117019-4
- The Institution of Electronics and Telecommunication Engineers(IETE); AM-210711
- Indian Society for Technical Education ;LM30999

Details of Publications:**International Journals:**

1. **K.B.Madhu Sahu**, J.Amarnath, K.Linga Murthy, B.P.Singh, "Movement Pattern of Metallic Particle in a single phase uncoated Gas Insulated Bus duct with Image charge effect", International Journal of Applied Engineering Research, ISSN0973-4562, Volume3, Number 1(2008), pp.109-120.
2. **K.B.Madhu Sahu**, J.Amarnath, "Image Charge Effect on Metallic Particle Movement in a Single Phase Uncoated Gas insulated Busduct", International Review on Modeling and simulation (IREMOS), Vol 1, N.2, December 2008
3. **K.B.Madhu Sahu**, J.Amarnath, "Effect of various parameters on the movement of Metallic particles in a Single Phase Gas Insulated Buduct with Image charges and Dielectric coated Electrodes", Asian Research

Publishing Network, Journal of Engineering and Applied Sciences, Volume 5, Number 6, June 2010, pp.52-60, ISSN1819-6608.

4. **K.B.Madhu Sahu**, J.Amarnath, "Electromagnetic Field effect on Metallic particle Contamination in a Gas Insulated Busduct", International Journal Applied Engineering Research. Volume 5, Number 8, 2010, pp.1381-1391. ISSN0973-4562.
5. **K.B.Madhu Sahu**, J.Amarnath, "Movement of Metallic particle Contamination in a Gas Insulated Busduct under dielectric coated enclosure with Electromagnetic Field effect", Indian Journal of Science and Technology, International Digital Journal. Volume3, Number 7, July 2010, pp.764-769. ISSN0974-6846.
6. **K.B.Madhu Sahu** et.al " Performance of a Fuzzy Logic Based AVR in SMIB, MMIB System and Power Flow Control Using SSSC and IPFC", International Journal of Engineering Research and Applications, IJERA Journal, Vol.2, Issue Jan-Feb 2012.
7. CHALLA KRISHNA RAO, Dr. K B MADHU SAHU, Dr. SIVA YELLAMPALLI, BALABOMMA BHASKARA RAO "A NEW SIMPLIFIED SYMMETRICAL MULTILEVEL INVERTER TOPOLOGY WITH PV APPLICATIONS" International Journal of Engineering Research and Applications (IJERA) ISSN: 2248-9622 www.ijera.com Vol. 2, Issue 1, Jan-Feb 2012, pp.260-268
8. P.TULASIRAO, CH.KRISHNA RAO, K.B.MADHU SAHU "AN ADVANCED POWER ELECTRONICS INTERFACE FOR PHOTOVOLTAIC POWERED INDUCTION MOTOR BASED ELECTRIC VEHICLE" International Journal of Electrical engineering & Technology (IJEET), Volume 5, Issue12, December 2014.PP.310-320.
9. Kumaraswamy Simhadri, K.B.Madhu Sahu "Mitigation of Power Quality Problems with Unified Power Quality Conditioner for Different Load Conditions Using P-Q Theory" International Journal of Engineering Research and Development IJERD Journal e-Issn: 2278-067X, P-Issn: 2278-800X, Vol.5 Issue 11- February 2013.
10. B.V.S. Acharyulu, K.B.Madhu Sahu "Novel Control of Three- Arm AC Automatic Voltage Regulator with Fuzzy logic Technique" International

Journal of Engineering Research & Technology IJEF Journal Issn:2278-0181,
Vol.2 Issue 1, January 2013 .

11. U.Lilli Kumar, K.B.Madhu Sahu, Ch. Krishna Rao "Fuzzy Controller Based Grid Connected Res At Distribution Level with Power Quality Improvement", International Journal of engineering Research and Technology (IJERT) ISSN: 2278-0181, Vol.2, Issue 11th November,2013.
12. G.Ashok, K.B.Madhu Sahu, Ch.Krishna Rao "Closed Loop Operation of High Efficiency Ac-Dc Step-Up Converter Using Fuzzy Logic Controller", International Journal of engineering Research and Applications (IJERA) ISSN:2248-9622, Vol.3, Issue 6th November-December, 2013.
13. T.Santosh Kumar, K.B.Madhu Sahu, Ch. Krishna Rao " Total Harmonic Distortion Analysis of Three Phase Nonlinear Load Using H-Bridge Vsi Topology Based_Dstatcom" International Journal of Engineering Research and Applications IJERA. ISSN : 2248-9622, Vol. 4, Issue 1(Version 3), January 2014, pp.
14. M. Naveena, K.B.Madhu Sahu, Ch. Krishna Rao "16-Cell Back-To-Back Stacked Multicell Converter" International Journal of Electrical and Electronics Engineering Research (IJEER), ISSN(P):2250-155X; ISSN(E):2278-943X, Vol 5, Issue 1, Feb. 2015, pp.33-44.
15. K.DHILLESWARAMMA, K.B.MADHUSAHU, CH.KRISHNARAO "IMPROVED POWER QUALITY FEATURES USING FUZZY BASED UPQC TOPOLOGY FOR BLDC DRIVE APPLICATIONS" International Journal of Electrical and Electronics Engineering Research (IJEER) ISSN(P): 2250-155X; ISSN(E): 2278-943X Vol. 5, Issue 1, Feb 2015, pp.45-58.
16. P.PHALGUNA RAO, K.B.MADHU SAHU, CH.KRISHNA RAO. "Performance Evaluation of High Step-up DC-DC Converter Working Under Closed Loop Control Scheme." INTERNATIONAL JOURNAL OF APPLIED ENGINEERING RESEARCH 10 (2015): .
17. S.RAJENDRA PRASAD, K.B.MADHU SAHU, CH.KRISHNA RAO. "Improvement of Power Quality by Current Controller for Grid Connected PV

Systems." INTERNATIONAL JOURNAL OF APPLIED ENGINEERING RESEARCH 10 (2015): 34572-34576.

18. K. SRINIVASA RAO, K. B. MADHU SAHU, CH. KRISHNA RAO. "A NEW SIMPLIFIED SYMMETRICAL MULTILEVEL INVERTER TOPOLOGY WITH PV APPLICATIONS." INTERNATIONAL JOURNAL OF APPLIED ENGINEERING RESEARCH 10.1 (2015): 32125-32140.
19. K. B. Madhu Sahu et. al " Three Phase Grid Connected Transformer less Inverter for Photovoltaic with PMSM drive" INTERNATIONAL JOURNAL OF APPLIED ENGINEERING RESEARCH ISSN: 0973-4562 VOLUME 11, NUMBER 3(2016) PP 2042-2048.
20. D. RAMA CHADRA RAO, K. B. MADHU SAHU, CH. KRISHNA RAO, K. B. SAIKIRAN "ENHANCEMENT OF POWER QUALITY USING MC-DPFC IN TRANSMISSION SYSTEM" International Journal of Electrical and Electronics Engineering Research (IJEEER), Vol. 6, Issue 6, Dec 2016.
21. B. SANTHOSH KUMAR, K. B. MADHU SAHU, K. B. SAI KIRAN, CH. KRISHNA RAO "ENHANCEMENT OF POWER QUALITY USING FUZZY CONTROLLED D-STATCOM IN DISTRIBUTION SYSTEM" International Journal of Electrical and Electronics Engineering Research (IJEEER), Vol. 7, Issue 3, Jun 2017.
22. G. Bharat Reddy, K. B. Madhu Sahu, C. H. Krishna Rao a, K. B. Saikiran "A Fuzzy based MC-DPFC for Enhancement of Power Quality in Transmission Line" International Journal of Pure and Applied Mathematics" Volume 117 No. 21 2017, 231-241(ISSN: 1311-8080 (printed version); ISSN: 1314-3395).
23. A. BHASKARA RAO, K. B. MADHU SAHU, CH. KRISHNA RAO, K. B. SAI KIRAN. "A FUZZY BASED DVR FOR MITIGATION OF VOLTAGE SAG/SWELL PROBLEMS". Journal of Advanced Research in Dynamical and Control Systems Vol. 9. Sp- 14 / 2017.

24. G.Vaddikasulu, V.S.Vakula, K.B.Madhu Sahu " SIMULATION OF MULTI CONVERTER BASED UNIFIED POWER-QUALITY (MC-UPQC) CONDITIONING SYSTEM ON VOLTAGE STABILITY OF RADIAL DISTRIBUTION SYSTEMS" Journal of Emerging Technologies and Innovative Research (JETIR) October 2017, Volume 4, Issue 10, JETIR (ISSN-2349-5162).
25. K. Pooja, Dr. K. B. Madhu Sahu, C.H. Krishna Rao "Power Quality Improvement in STATCOM Based PQ-controller For Grid connected to Wind Energy System. "Journal of Emerging Technologies and Innovative Research (JETIR), November 2018, Volume 5, Issue 11 (ISSN-2349-5162).
26. Ramana Pilla, Killari Santukumari, K.B.Madhu Sahu. "Design and Simulation of the Control System for Inverte-fed Permanent Magnet Synchronous Motor Drive". Indonesian Journal of Electrical Engineering and Computer Science Vol. 12, No. 3, December 2018, pp. 958~967 (ISSN: 2502-4752, DOI: 10.11591/ijeecs.v12.i3.pp958-967).
27. Attada. Karishma, K.B.Madhu Sahu, Ch.Krishna Rao. " A Novel Transformerless Interleaved buck converter with minimum switching stresses and improved conversion ratio" International Journal of Creative Research Thoughts(IJCRT), ISSN:2320-2882, Issue 5, Volume 9, May-2021.

National Journal:

28. K.B.Madhu Sahu, J.Amarnath, K.Linga Murthy and B.P.Singh, "Metallic particle Movement in a Single Phase Gas Insulated Busduct by Using Electrostatic Effect", Engineering Today, National Journal, Vol: IX, Issue: 10, October, 2007.

International Conferences:

29. **K.B.Madhu Sahu**, J.Amarnath, K.Linga Murthy and B.P.Singh, "Simulation of Particle movement in a Single Phase Isolated Gas Insulated Busduct with Image Charge Effect" **IEEE** International Conference on High Voltage Engineering and Application, Chongqing, China, November 9-13, 2008.

30. **K.B.Madhu Sahu**, J.Amarnath, K.Linga Murthy, B.P.Singh,
"Image Charge Effect on Metallic particle movement in a Single Phase Gas Insulated Busduct with Dielectric coated Enclosure" International Conference (**IEEE**)-PSACO, 2008, A.U College of Engineering, Andhra University, Visakhapatnam, A.P., INDIA.
31. **K.B.Madhu Sahu**, J.Amarnath and B.P.Singh, "Monte – Carlo Simulation of Particle Movement in 1-Phase and 3-Phase Gas Insulated Busduct", **IEEE** International Conference on condition Monitoring and Diagnosis, Changwon, Korea, April 2-5, 2006.
32. **K.B.Madhu Sahu**, J.Amarnath and S.Goud,"Determination of Random Movement of Particle in Gas Insulated Busduct", **IEEE** International Conference, Salvador, Bahia-Brazil, 11-14 Sept. 2005, On page(s);392-395.
33. **K.B.Madhu Sahu et.al** "Movement Patterns of Metallic Particles in a Single Phase Compressed Gas Insulated Busduct with Electromagnetic Field Effect", 3rd World Conference on Science and Engineering (WCSE 2013), Singapore, 24th to 25th, August – 2013.

National Conferences:

34. **K.B.Madhu Sahu**, J.Amarnath, K.S.Linga Murthy, G.V.Nagesh Kumar, Poonam Upodyay, "Particle Movement in a 245kV, 300kV and 400kV Gas Insulated Substations with and without dielectric coating enclosure", National Conference on Recent Advances in Power, Signal Processing and Control, 16-17, November-2004, NIT, Rourkela, INDIA.
35. **K.B.Madhu Sahu**, J.Amarnath, K.S.Linga Murthy, K. Praveen, B.P.Singh
"Effect of various operating conditions and Parameters on Movement of Metallic particles in Gas Insulated Busduct", Workshop on EHV Transmission System Practice and Challenges, 15-16, December 2005, CPRI, Hyderabad, A.P, INDIA.

36. **K.B.Madhu Sahu**, J.Amarnath and B.P.Singh "Influence of Power frequency and Impulse voltages on practice movement in Gas Insulated Busduct (GIB) with epoxy coatings", National Conference, CPRI, Bangalore, INDIA 2005.
37. **K.B.Madhu Sahu**, G.V.NageshKumar, J.Amarnath, Srivastava,K.D and B.P.Singh."Particle Trajectories in an isolated GIB using Fuzzy logic approach", National Power System Conference, NPSC 2004, IIT, Madras.

Details of Conferences/Workshops/Refresher Courses organized:

1. Convenor for A Two Day Workshop in Advanced Electrical Engineering on 6th & 7th September, 2008.
2. Co-ordinator for AICTE Sponsored a Two Week Staff Development Programme on "Soft Computing Application to Power System and Control MAT Lab" on 16th to 29th April, 2012.
3. Convenor for A Two Day National Level Students Symposium ASPIRE'2k12 on 21st and 22nd September, 2012.
4. Convenor A Two Day National Level Conference on "Applications of Evolutionary Algorithms in Power Systems" (AEAPS-2017) 28-04-2017 and 29-04-2017.

Details of Conferences/Workshops/Refresher Courses Attended:

Internal:

| | | | |
|---|--|---|----------------|
| 1 | 26 th – 28 th December, 2013 | A Short Term Training Programme On Soft Computing Applications to Power Systems(SOFTCAPS) | AITAM, Tekkali |
| 2 | 6 th December, 2014 | A One-day workshop on "Outcome Based Education | AITAM, Tekkali |
| 3 | 15 th & 16 th November, 2014 | Twenty First Century, the Dawn of Digital Era: Pedagogical Issues of Technical Teachers | AITAM, Tekkali |
| 4 | 19 th January, 2013 | Outcome Based Education | AITAM, Tekkali |
| 5 | 9 th March 2015 | Outcome Based Education | AITAM,TEKKALI |
| 6 | 4 th to 8 th April, 2015 | Effective solutions to smart grid | AITAM,TEKKALI |
| 7 | 22 nd to 27 th September 2016 | Optimization techniques for Electrical Engineering Applications | AITAM,TEKKALI |

External:

| S. No. | Dates | Name of The Programme | Host Institution |
|--------|---|---|---|
| 1 | 16-10-1998 | Computer Applications to Power Systems | V.R. Siddhartha Engineering College, Vijayawada. |
| 2 | 24th and 25th , September 1999. | Application of PSPICE FOR Electrical and Power Electronic Circuits” | Osmania University |
| 3 | 14th -25th June ,2004 | “Digital simulation of power system” | Sreenidhi Institute of Science & Technology, Hyderabad |
| 4 | 11-10-2004 to 02-11-2004 | Generation Measurement & Testing techniques in High Voltage Engg. | JNTU , HYDERABAD |
| 5 | 20th, October, 2004. | Distributed/Energy-Efficient Power Generation” | BVRIT, Narsapur, Medak |
| 6 | 29th July, 2004. | “HOW TO FOSTER ENTREPRENEURSHIP AMONG ENGINEERING STUDENTS | JNTU, Hyderabad |
| 7 | 15th and 16th, December, 2005. | “EHV Transmission System – Practice and Challenges” | CPRI, Hyderabad, |
| 8 | 07-11-2005 to 26-11-2005 | “Advances in Power Electronics and their Applications to Drives and Power Systems | JNT University, Hyderabad. |
| 9 | 2nd &3rd February, 2007 | Emerging power Scenario in India-07 | MVGR College of Engineering, Vizianagaram. |
| 10 | 28th October,2007 | Gas Insulated Systems | IEEE Kharagpur Section, India |
| 11 | April 12th & 13th 2008. | Emerging trends in Electrical Engineering | Mother Teresa Institute of Science & Technology, Sathupally, Khammam dist |
| 12 | 4 th march, 2010 | MHRD on Virtual Labs | IIT, Kharagpur |
| 13 | 17 th &18 th , December,2011 | Artificial Intelligence Techniques in Engineering Applications-2011(AITEA-11) | MVGR College of Engineering, Vizianagaram |
| 14 | 11th -15th February, 2013. | “Operation of Restructured power systems | NIT, Warangal |
| 15 | 23rd and 24th December, 2013. | Management Development Programme for Senior Faculty Members of TEQIP Institutions inA.P | Indian School of Business (ISB) |
| 16 | 24 th to 26 th January 2014. | Power Quality Improvement in Hybrid Energy Systems-2014 (PQIHES-14) | MVGR college of Engineering, Vizianagaram, |
| 17 | 27 th to 29 th November, 2014. | 44 th Annul National Convention | College of Engineering, Trivandrum |
| 18 | 11 th -12 th December 2014 | Research & Teaching Methodologies in Electrical Engineering | IIT, Hyderabad |
| 19 | 12 th June to 02 nd August,2014 | Pedagogy for Effective use of ICT in Engineering Education | IIT, Bombay |
| 20 | 03 rd to 05 th March, 2016 | Recent Trends in Power Electronics for Smart Grid and Electrical Drives | IIT, Patna |

Other Achievements:

1. University Award to Meritorius Teachers 2010 in JNT University, Kakinada on 5th September, 2010.
2. Best Paper Certificate to K.B. Madhu Sahu et.al for International Journal Paper Titled “16-Cell Back-to-Back Stacked multicell Converter” published in Trans Stellar journal Feb 2015.

Dr. K.B.Madhu Sahu
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AITAM, Tekkali