



## **Dr. M. Surya Kalavathi**

Ph.D POST-DOC(USA)

**Professor**

**IEEE, ISTE, IAENG, MIE**

Electrical & Electronics Engineering

### **Areas of Interest:**

Power Systems, High Voltage Engineering and Control Systems, Power Electronics and Drives.

Published more than 100 Research Papers in international and national journals. She has guided 23 Ph.D scholars and presently guiding 3 Ph.D. Scholars. She has specialised in Power Systems, High Voltage Engineering and Control Systems. Her research interests include Simulation studies on Transients of different power system equipment. She has 24 years of experience. She has invited for various lectures in institutes.

### **-> Educational & Professional**

#### **-> Academic Qualifications**

-> Post Doctoral in Electrical Engineering, Carnegie Mellon university, Pittsburgh, USA (2007-2008)

-> Ph.D in Electrical Engineering, Jawaharlal Nehru Technological University Hyderabad (2003-2006)

-> M.Tech in Electrical Engineering, Sri Venkateswara University (1991-1993)

-> B.Tech in Electrical Engineering, Sri Venkateswara University (1984-1988)

#### **-> Professional Experience**

#### **-> Industrial Experience**

-> Research Scholar, BHEL Hyderabad (2001 - 2006)

#### **-> Teaching Experience**

-> Professor, JNTU College of Engineering Hyderabad (2006-04-22 - Till Date)

-> Associate Professor, JNTU College of Engineering Hyderabad (28-10-1999 - 2006-04-21)

-> Asst. Prof., Vasavi College of Engineering (16-10-1995 - 27-10-1999)

-> Asst. Prof., KSRM Engineering College (04-08-1993 - 13-10-1995)

#### **-> At JNTUH**

-> Professor, Jawaharlal Nehru Technological University Hyderabad (2006 - Till Date)

-> Assoc.Prof., Jawaharlal Nehru Technological University Hyderabad (1999 - 2006)

#### **-> Research**

#### **-> Research Projects**

-> *Porting of Steam Turbine Legacy Design Programs*, funded by BHEL HYDERABAD - 12.10 LAKHS (sanctioned in 2018 duration of 2 years)

#### **-> Books**

-> M.Surya Kalavathi, *Nature Inspired Algorithms for Solving Optimal Reactive power Problem*, LAMBERT Academic Publishing, 978-620-2-19873-8, 2018

-> M.Surya Kalavathi, *Basic Electrical Engineering*, S. CHAND, 2017

-> M.Surya Kalavathi, *Basic Electrical and Electronics Engineering*, S. CHAND, 2017

-> Surya Kalavathi Munagala, *9 Algorithms for Solving Reactive Power Problem*, LAMBERT Academic Publishing, 978-3-659-90878-1, 2016

#### **-> Publications**

- > M.Ranjit, T. Brahmananda Reddy, M.Suryakalavathi , *Decoupled Centric and Non-Centric PWM Techniques for Open-End Winding Induction Motor Drive*, Serbian Journal of Electrical Engineering, Vol No.15, Issue No.3, OCT, 2018
- > M.Ranjit, T. Brahmananda Reddy, M.Suryakalavathi , *Performance of Decoupled and Nearest Sub Hexagonal Center Random PWM Techniques for Open-end winding Induction Motor Drive*, Journal of Advanced Research in Dynamical & Control Systems, Vol No.10, Issue No.12, 2018
- > Md Sajid, Dr. M.Suryakalavathi, B.P. Singh , *Experimental and Theoretical Determination of Voltage Stress on Insulation of Industrial Motor Winding*, IJET, Vol No.9, Issue No.2, pp.1484-1495, MAY, 2017
- > Md Sajid, B.P. Singh , M. Suryakalavathi, *Experimental and Theoretical Investigation of Transient Voltage Distribution in an 11 kV Industrial Motor winding*, Energy Procedia, Vol No.117, pp.321-328, Elsevier, 2017
- > Md Sajid, B.P. Singh, M. Suryakalavathi, *Mitigation of Effect of Switching and Re-ignition Surges during Abort Start of Motor*, IEEMA Journal, Vol No.9, Issue No.1, pp.81-85, SEP, 2017
- > M. Ranjit, T. Brahmananda Reddy, M.Suryakalavathi , *Performance Improvements In Open End Winding Induction Motor Drive Using Decoupled PWM Techniques*, Elsevier Procedia Journal, Vol No.117, JUN, 2017
- > Dr.M.SuryaKalavathi, G.Radhika, *Computational Study of 400 kV Transmission lines against Lightning with Line Terminating Matrix*, International Journal of Engineering Trends & Technology, ISBN No.2231-5381, Vol No.50, Issue No.2, August , 2017
- > Dr.M.SuryaKalavathi, Prakasam k, Prabhavathi d, *Mitigation and Analysis of Very Fast Transient over Voltages (VFTOs) of Transformer in 765kV Gas Insulated Substation by Wavelet Transform*, International Journal of Advances in Electrical and Electronics Engineering (IJAE), may, 2016
- > Dr.M.SuryaKalavathi, prakasam k, Prabhavathi d, *Mitigation and analysis of very fast transient over voltages(vftos) of transformer in 765kv gas insulated substation (GIS) using wavelet transform*, International Journal of Advanced Technology In Engineering and Technology(IJATET), 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Mitigation and Analysis of Very Fast Transient over Voltages of Transformer in a 765kV Gas Insulated Substation*, International Journal of Electrical Power and Energy System, ELSEVIER, IJEPES, 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Analysis of Very Fast Transient Over Voltages (VFTOs) of Transformer In Gas Insulated Substation (GIS) Using Wavelet Technique*, Journal of Theoretical And Applied Information Technology, ISBN No.1817-3195 , JUN, 2016
- > Dr.M.SuryaKalavathi, *Analysis of Very Fast Transient Over Voltages (VFTOs) of Transformer In Gas Insulated Substation (GIS) Using Wavelet Technique*, Journal of Theoretical And Applied Information Technology, ISBN No.1817-3195 , JUN, 2016
- > Dr.M.SuryaKalavathi, P. Balachennaiah, P.Nagendra, *Optimizing real power loss and voltage stability limit of a large transmission network using firefly algorithm*, Engineering Science and Technology, an International Journal, Elsevier, 2016
- > Dr.M.SuryaKalavathi, P.Ramana, K. Alice Mary , *State Estimation of Permanent Magnet Synchronous Motor Drive Using Non-Linear Full Order Observer*, The IIOAB Journal(Special Issue on Energy, Environment, and Engineering), ISBN No..0976-3104, Vol No.7, Issue No.11, pp.68-77, Emerging Source Citation, NOV, 2016
- > Dr.M.SuryaKalavathi, P. Ramana, K. Alice Mary , *Design Methodology for Torque-angle Control of a Non-linear Vector Controlled Permanent Magnet Synchronous Motor*, World Journal of Modelling Simulation(WJMS), ISBN No.1746-7233, Vol No.12, Issue No.4, pp.281-291, scopus, nov, 2016
- > Dr.M.SuryaKalavathi, P. Ramana, K. Alice Mary , *State Feedback Linearization of a Non-linear Permanent magnet Synchronous motor drive*, Indonesian Journal of Electrical Engineering and Computer science, ISBN No.2502-4760, Vol No.1, Issue No.3, SCOPUS, MARCH, 2016
- > Dr. M. Surya Kalavathi , I. R. Selvarasu, Dr. C. Christofer Asir Rajan, *Self Adaptive Firefly Algorithm based Multi-Objectives for Multi-Type FACTS Placement*, IET Generation, Transmission & Distribution, JAN, 2016
- > Dr.M.SuryaKalavathi, MD SAJJID, *Reduction of Switching Surges in Large Industrial Motors Connected by Cables*, INTERNATIONAL JOURNAL OF CONTROL THEORY APPLICATIONS, Vol No.9, Issue No.34, 2016
- > Dr.M.Surya Kalavathi, *Hybridization of firefly and water wave algorithm for solving reactive power problem*, International Journal of Engineering Research in Africa , Vol No.21 , pp.165-171, 2016
- > G. RADHIKA, Dr. M.SuryaKalavathi, G.VenuGopal, *Development of Small Scale Impulse Current Generator for Testing of MO Blocks*, IEEMA Journal, ISBN No.0907-2946., JAN, 2016
- > Dr.M.SuryaKalavathi, Prakasam k, Prabhavathi d, Ravindranath Reddy. B, *Continuous Wavelet Transform (CWT) based Analysis of Very Fast Transient over Voltages of 132 KV Power Transformer*, International Journal of Computational Engineering Research (IJECER), may, 2015
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, Ravindranath Reddy. B, *Analysis of very fast transient over voltages in Gas Insulated Substations*, IJEEET, 2015
- > Dr.M.SuryaKalavathi, k.prakasam, Prabhavathi d, *Mitigation and Analysis of Very Fast Transient over Voltages (VFTOs) of Transformer in 245kV Gas Insulated Substation (GIS) Using Wavelet Transform*, International Journal of Scientific and Applied Science (IJSEAS) , sept, 2015
- > Dr.M.SuryaKalavathi, P. Balachennaiah, P.Nagendra, *Firefly algorithm based solution to minimize the real power loss in a power system*, Ain Shams Engineering Journal 2015, Elsevier, 2015
- > Dr. M. Surya Kalavathi , R. Selvarasu, Dr. C. Christofer Asir Rajan, *Optimal placement of SVC for transmission loss minimisation using self-adaptive firefly algorithm*, International Journal of Energy Technology and Policy, Vol No.11, Issue No.4, pp.315-330, 2015
- > Dr. M. Surya Kalavathi, R. Selvarasu, *Multi type FACTS Placement for Voltage Constrained Loss Minimization using Self Adaptive Firefly Algorithm*, Australian Journal of Electrical and Electronics Engineering., Vol No.12, Issue No.2, pp.165-174, 2015
- > Dr. M. Surya Kalavathi, R. Selvarasu, *TCSC Placement for Loss Minimization using Self Adaptive Firefly Algorithm*, Journal of Engineering Science and Technology, Vol No.10, Issue No.3, pp.291-306, 2015
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *Development of optimal bidding strategies using new aggregated demand model and hybrid technique*, Journal of Theoretical and Applied Information Technology (JAITIT), ISBN No.1992- 8645, Vol No.54, Issue No.3, pp.474-486, AUG, 2015
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *Optimal Bidding strategy in south region day-ahead Market model Using New Aggregated Demand Model and Hybrid Technique*, International Journal of Computer Applications, ISBN No.0975 â€” 8887, Vol No.131, Issue No.7, DEC, 2015
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *Modeling of Price Elasticity in Optimal Bidding Strategies by using Artificial Bee Colony (ABC)*, International Journal of Soft Computing and Engineering (IJSC), ISBN No.2231-2307, Vol No.5, Issue No.5, NOV, 2015
- > G.RADHIKA, Dr. M.SuryaKalavathi, K.Vamshi, *Significance of Transposition for 220kV Tower*, International Journal of Latest Research in Science and Technology., ISBN No.2278-5299, Vol No.4, Issue No.5, 2015
- > Dr.M.SuryaKalavathi, Balachennaiah P, *optimal location of SVC for real power loss minimization and voltage stability enhancement using harmonic search algorithm*, International Journal of Electrical Engineering and technology, 2014
- > Dr. M. Surya Kalavathi, R. Selvarasu, Dr. C. Christofer Asir Rajan, *Optimal Placement of TCSC for Voltage Constrained Loss Minimization using Self Adaptive Firefly Algorithm*, Journal of Electrical Engineering, Romania, Vol No.14, Issue No.2, pp.128-135, 2014
- > Dr.M.SuryaKalavathi, G.Radhika, *Small Scale High Frequency, High AC Voltage Generation Using Tesla Coil*, International Journal of Electrical and Electronics Engineering Research, ISBN No.2278-9943, Vol No.4, Issue No.4, pp.11-18, August , 2014
- > Dr.M.SuryaKalavathi, Prakasam .K, Prabhavathi. D, Ravindranath Reddy. B, *Wavelet Based Suppression of Very Fast Transient Over Voltages in Power Transformer*, International Journal of Advances in Science and Technology, JUN, 2013
- > Dr.M.SuryaKalavathi, Prakasam k, Prabhavathi d, Ravindranath Reddy. B, *Computation of Very Fast Transient over Voltages in Transformer by Wavelet Transform in 800KV GIS*, The International Journal of Engineering and Science (IJES), feb, 2013
- > Dr.M.SuryaKalavathi, Prakasam k, Prabhavathi d, Ravindranath Reddy. B, *Analysis of Very Fast Transient over Voltages in Transformer in 400kv GIS by Wavelet*, International Journal of Engineering Science Invention (IJESI), 2013
- > Dr.M.SuryaKalavathi, Prakasam .K, Prabhavathi d, Ravindranath Reddy. B, *Analysis of Very Fast Transient over Voltages in 500KV transformer by Using Wavelet Transform*, International Journal of Science and Research (IJSR), april, 2013
- > Dr.M.SuryaKalavathi, Prakasam k, Prabhavathi d, Ravindranath Reddy. B, *Computation of VFTOs in Transformers of 800KV GIS with ATP/EMTP software*, IJEEEE, 2013
- > Dr. M. Surya Kalavathi , R. Selvarasu, Dr. C. Christofer Asir Rajan, *SVC Placement for Voltage Constrained Loss Minimization using Self Adaptive Firefly Algorithm*, Journal of Archives of Electrical Engineering, Vol No.62, Issue No.4, pp.349-361, 2013
- > Dr. M. Surya Kalavathi, R. Selvarasu, *Optimal Placement of UPFC for Voltage Constrained Loss Minimization using Self Adaptive Firefly Algorithm*, International Review of Electrical Engineering, Vol No.8, Issue No.4, pp.1296-1301, 2013
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *Optimal Bidding Strategies Using New Aggregated Demand Model with Artificial Bee Colony (ABC) Technique*, International Journal of Applied Engineering Research, ISBN No.0973-4562, Vol No.8, pp.529-542, NOV, 2013
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *Optimal Bidding Strategies using New Aggregated Demand Model with Particle Swarm Optimization Technique*, International 181 Journal of Engineering Science and Technology (IJEST), ISBN No.0975- 5462, Vol No.5, Issue No.2, pp.380-390, FEB, 2013
- > Dr.M.SuryaKalavathi, G.Radhika, *Backflashover Analysis Improvement of a 220kV Transmission Line*, International Journal of Engineering Research and Applications, ISBN No.2248-9622, Vol No.3, Issue No.1, pp.532-536, JAN, 2013
- > Dr.M.SuryaKalavathi, Balachennaiah P, *optimal location and parameter setting of UPFC for power system voltage stability enhancement using differential evolution(DE) algorithm*, IEEE International Power Modulator and Voltage Conference at San Diego, CA, USA, JUN, 2012
- > Dr.M.SuryaKalavathi, G.Radhika, *Fault Analysis of a Transmission Line Using PSCAD/EMTDC*, International Journal of Multidisciplinary Research & Advances in Engineering., ISBN No.0975-7074., Vol No.3, Issue No.1, pp.71-79, 2011
- > Dr.M.SuryaKalavathi, G.Radhika, G.Soujanya, *Effective Placement of Surge Arrester During Lightning*, International Journal of Computer Communication and Information Science., ISBN No.0976-1349, Vol No.2, Issue No.1, DEC, 2010
- > Dr.M.SuryaKalavathi, P. Ramana, K. Alice Mary , *A Novel Parameter Estimation Method for Permanent Magnet Synchronous Motor Drive*, International Journal of Power and Energy Conversion, ISBN No.1757-1162
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *Bidding strategy in south region day-ahead demand model by Improved Artificial Bee Colony algorithm*, Int. J. Power and Energy Conversion, Inderscience.com
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *Modeling of Price Elasticity Analysis in Optimal Bidding Strategies by using Particle Swarm Optimization (PSO)*, International Journal of Energy Engineering (IJEE).
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *Analysis of Price Elasticity of Demand for Indian Power Market*, Energy Policy., Elsevier.Com
- > Md Sajid, B.P. Singh, M. Suryakalavathi, *Inter turn and turn to ground voltages due to fast surges in a 6.6 kV industrial motor coil*, CPRI Journal
- > G. RADHIKA, Dr. M.SuryaKalavathi, *Improvement of Backflashover Analysis for a 400 kV System Integrated with Sub Station*, International Journal of Electrical Electronics and Telecommunication Engineering, ISBN No.2051- 3240, Vol No.45, Issue No.2

## National Journals

- > Dr.M.SuryaKalavathi, Ramana p, K. Alice Mary , J. Hareesh Kumar , *Design of non-liner reduced and full order observers for an inverter fed Permanent Magnet Synchronous Motor drive*, Indian Journal of Science and Technology, ISBN No.0974-5645, Vol No.9, Issue No.9, pp.11-8, SCOPUS, MARCH, 2016
- > Dr.M.SuryaKalavathi, Ramana P, K. Alice Mary , A. Swathi, *Parameter Estimation of Permanent Magnet Synchronous Motor-A Review*, i-managerâ€™s Journal on Electrical Engineering, ISBN No.2230-7176, Vol No.9, Issue No.4, pp.46-56, DEC, 2015
- > G. RADHIKA, Dr. M.SuryaKalavathi, *Computation of 400kV Phase and Sequence impedance Matrices Signifying Transposition*, i-managerâ€™s Journal on Power Systems Engineering, ISBN No.2312-7499, Vol No.3, Issue No.4, 2015

## International Conference

- > Md Sajid, B.P. Singh, M. Suryakalavathi, Amer Ali khan, *Effect of RC Surge Suppressor in Reduction of Over Voltages at Motor Terminal Caused by PWM based Inverter*, 3rd International conference on NCCS, Proceedings of Springer, 2017
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Mitigation and Analysis of Very Fast Transient over Voltages (VFTOs) of Transformer in 765kV Gas Insulated Substation by Wavelet Transform*, International Conference on Innovation in Engineering Science and Management , ICIESM, 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Analysis of Very Fast Transient over Voltages of Transformer in Gas Insulated Substation (GIS) using Wavelet Technique*, International Conference on Engineering Trends in Electrical and Power Engineering, 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Mitigation and Analysis of Very Fast Transient over Voltages (VFTOs) of Transformer in 765kV Gas Insulated Substation by Wavelet Transform*, Inter National Journal of Advances in Electrical and Electronics Engineering (ICIESM), 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Mitigation and Analysis of Very Fast Transient over Voltages (VFTOs) of Transformer in 1000kV Gas Insulated Substation (GIS) Using Wavelet Transform*, International Conference on Intelligent Communication, Control and Devices, ICICCD, Springer, 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Analysis of Very Fast Transient over Voltages of Transformer in Gas Insulated Substation (GIS) using Wavelet Technique*, The 2016 International Conference of Electrical and Electronics Engineering, (WCE IAENG- 2016), 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Mitigation and analysis of very fast transient over voltages(vftos) of transformer in 765kVgas insulated substation (GIS) using wavelet transform*, International conference Recent research Development in Science, Engineering & Management, ICRDSEM-16, ISBN No.978-81-931039-0-6, Maharashtra Chamber of Commerce Industries & Agriculture, Pune, Maharashtra (India), 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Computation and Analysis of Very Fast Transient over Voltages of 1000kV Transformer by using wavelet Transform*, Inter National Conference on Computational Science and Applications, Springer â€™ ICCAS, 2016
- > Md Sajid, B.P. Singh, M. Suryakalavathi, *Impulse and Fast Surge Distribution of Voltage in 11 kV Industrial Motor*, Proceeding of IEEE digital explore, ISBN No.978-1-4673-9939-5/16/\$31.00, 2016
- > Md Sajid, B.P. Singh, M. Suryakalavathi, P. Sridhar, *Frequency Response and Coherence Function Analysis for Detection of a Single Turn Fault in the Line End Coil of 11 kV Motor*, IEEE, MAR, 2016
- > Dr.M.SuryaKalavathi, Mr. P Srinath Rajesh, *Performance of Three Phase Gas Insulated Bus Duct under Particle Contamination Using SF6/N2, SF6/Air, SF6/Xe, SF6/CO2 Gas Mixtures*, IEEE International Conference on Engineering and Technology, MARCH, 2015
- > Dr.M.SuryaKalavathi, Mr. P Srinath Rajesh, *Particle Motion Analysis of a 3- $\bar{A}$  Gas Insulated Substation Using SF6 -N2/ SF6- CO2/SF6-Air Gas Mixture*, IEEE UP Section Conference on Electrical, Computer and Electronics, IIT Allahabad, UP, DEC, 2015
- > Dr.M.SuryaKalavathi, Balachennaiah P, *Firefly algorithm for optimization of real power loss and voltage stability limit*, IEEE International Conference on Electrical, Electronics, Signals, communication and optimization, JAN, 2015
- > Dr.M.SuryaKalavathi, Balachennaiah P, *Real power loss minimization using symbiotic Organisms search algorithm*, 12th IEEE India International conference on electronics, Energy, Environment, Communication, Computer and control, DEC, 2015
- > Dr.M.SuryaKalavathi, Balachennaiah P, *optimal location of SVC for real power loss minimization and voltage stability enhancement using PSO algorithm*, International Conference on Energy Efficient technologies for sustainability, April, 2014
- > Dr. M. Surya Kalavathi, R. Selvarasu, *Self Adaptive Firefly Algorithm based Transmission Loss Minimization using Multi Type FACTS Devices*, IEEE International Conference on Circuit, Power and Computing Technologies(ICCPCTâ€™2014), Noorul Islam University, Kumarakoil, Tamil Nadu, India, MAR, 2014
- > Dr. M. SURYAKALAVATHI, R. Selvarasu, *UPFC Placement: A New Self Adaptive Firefly Algorithm*, 4th International Conference on Sustainable Energy and Intelligent System , DEC, 2013
- > Dr. M. SURYAKALAVATHI, R. Selvarasu, Dr. C. Christoper Asir Rajan, *Self Adaptive Firefly based Transmission Loss Minimization Algorithm for SVC Placement*, International Conference on Human Computer Interactions (ICHCIâ€™2013), AUG, 2013
- > Md Sajid, B.P. Singh, M. Suryakalavathi, *Switching surges in large industrial motors and Reduction of transient voltage in the distribution winding*, 2nd International conference on Advancements in Engineering & management , FEB, 2013
- > Dr.M.SuryaKalavathi, G.Radhika, M.Balasubramanyan, *Backflashover Analysis and Protection of 220 KV Substation*, International Conference on Recent Trends in Communication and Computer Networks, Hyderabad,, Elsevier, NOV, 2013
- > Dr.M.SuryaKalavathi, G.Radhika, *Back flashover Analysis Improvement of 220 KV Double Circuit Transmission Line*, International Conference on Advances on Power Electronics and Instrumentation Engineering, Chandigarh, IET, August , 2013
- > Dr.M.SuryaKalavathi, G.Radhika, *Study of Lightning induced outage improvement for 220KV Transmission line*, International Power Modulator and High Voltage Conference, San Diego, CA, JUN, 2012
- > Dr.M.SuryaKalavathi, G.Radhika, *Protection of 132KV Transformer against lightning by Effective Placement of Surge Arresters*, International Power Modulator and High Voltage Conference, San Diego, CA, JUN, 2012
- > Dr.M.SuryaKalavathi, G.Radhika, *Effective Placement of Surge Arrester During Lightning*, XVII International Symposium on High Voltage Engineering, Hannover, Germany, August , 2011
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Analysis of Very Fast Transient over Voltages (VFTOs) of Transformer in Gas Insulated Substation (GIS) using Wavelet Technique*, (WT)-3rd International Conference on Electrical, Electronics, Engineering Trends , Communication and Sciences, IET- IEEE
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Effect of Terminal Components on Very Fast Transient over Voltages (VFTOs) of Transformer in 765kV/400kV Gas Insulated Substation (GIS)*, Conference on Diagnostics in Electrical Engineering, ; CDEE-16, IEEE; 2016
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Mitigation and analysis of Very Fast Transient over Voltages (VFTOs) of Transformer in 765kV/400kV Gas Insulated Substation using Wavelet Transform*, Conference on Diagnostics in Electrical Engineering, CDEE-16, IEEE; 2016
- > Dr. M. SURYAKALAVATHI, V. Madhu Sudana Reddy, Dr. B.Subramanyam , *An Adaptive Technique Based Modeling of Optimal Bidding Strategies for Competitive Electricity Market*, Power and Energy Systems: Towards Sustainable Energy (PESTSE 2014)

## National Conference

- > Dr.M.SuryaKalavathi, G.Radhika, *Impact of High Tower Footing Resistance for Performance Analysis of 220kV Transmission Structure Effect on a Back flashover*, National Conference on High Voltage Engineering,, ISBN No.978-81- 928278-0-3, 2015
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Analysis of very fast transient over voltages in gas insulated substation*, JNTUK CTIPSCAD , 2015
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, Ravindranath Reddy. B, *Mitigation and Analysis of very fast transient over voltages of 245KV Transformer in Gas Insulated Substation*, NCHVE, 2015
- > Dr.M.SuryaKalavathi, Mr. P Srinath Rajesh, *Analysis Of Particle Movement In A 1- $\bar{A}$  Gas Insulated Substation Using Sf6 /N2, Sf6/Ar And Sf6/Kr Dielectric Gas Mixture*, National conference on High Voltage Engineering, JNTUHCHE, Hyderabad, JUN, 2015
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, Ravindranath Reddy. B, *Analysis of Very Fast Transient over Voltages of Transformer by Wavelet*, NCRASEM, 2013
- > Dr.M.SuryaKalavathi, K. Prakasam, Prabhavathi d, *Mitigation and Analysis Very Fast Transient over Voltages (VFTOs) of Transformer in 1000kV Gas Insulated Substation (GIS) Using Wavelet Transform*, i-manager's Journal on Electrical Engineering (JEE), 2011
- > Md Sajid, B.P. Singh, M. Suryakalavathi, Syed Abdul Sattar, *Voltage Escalation due to Circuit Breaker Re-ignitions in Large Industrial Motors*, National conference organised by NCETE-2016

## Events Participated/Organized

### - Organized

- > Organized a Tutorial on Power Electronics and Outcome Based Education, JNTU Hyderabad, 08-12-2015 to
- > Organized a Conference on National Conference on High Voltage Engineering, JNTU Hyderabad, 19-06-2015 to 20-06-2015
- > Organized a Workshop on High voltage Engineering, JNTU Hyderabad, 06-03-2013 to 08-03-2013
- > Organized a Refresher Course on High voltage Testing measurements and GIS substations, JNTU Hyderabad, 26-02-2013 to 16-03-2013
- > Organized a Workshop on High voltage Engineering, JNTU Hyderabad, 12-12-2011 to 24-12-2011
- > Organized a Orientation Course on High voltage testing and GIS, JNTU Hyderabad, 19-09-2011 to 24-09-2011
- > Organized a Tutorial on Virtual High voltage Laboratory, JNTU Hyderabad, 28-08-2010 to
- > Organized a Workshop on Real Time Operation and Control of Power Systems, JNTU Hyderabad, 16-02-2009 to 06-03-2009

### - Participated

- > Participated in a Conference on *24th World Congress on Engineering*, London, U.K., 29-06-2016 to 01-07-2016
- > Participated in a Conference on *IEEE conference on Electrical Insulation and Dielectric Phenomena*, Des Moines, IOWA, USA, 19-10-2014 to 22-10-2014
- > Participated in a Symposium on *two day national Symposium and Technical Exhibition on Micro-Grids*, Tech Mahindra, Hyderabad, 01-08-2013 to 02-08-2013
- > Participated in a Conference on *IEEE International conference on Power Modulator and High Voltage*, San Diego, CA,USA, 03-06-2012 to 07-06-2012
- > Participated in a Conference on *International conference on Power electronics and drive systems*, Singapore, 05-12-2011 to 08-12-2011
- > Participated in a Tutorial on *Statistics Micro Mini class*, Pittsburgh, USA, 07-01-2008 to 08-01-2008
- > Participated in a Conference on *IEEE conference on High Voltage Engineering*, Kansas city, Missouri, USA, 15-10-2006 to 18-10-2006
- > Participated in a Refresher Course on *Neural Networks & Application s to Power Systems and Control Systems*, JNTU Hyderabad, 02-05-2004 to 14-05-2004
- > Participated in a Refresher Course on *VLSI Design*, JNTU Hyderabad, 13-11-2002 to 03-12-2002
- > Participated in a Conference on *Universal Digital Library*, USA,

#### -> Administrative Positions Held

- > DIRECTOR, School of Continuing and Distance Education (SCDE), JNTUH, 01 Dec 2018 - Present
- > Head of the Department, JNTUH College of Engineering Hyderabad, 01 Sep 2008 - 30 Sep 2010
- > Head of the Department, JNTU Pulivendula, 08 Jun 2006 - 01 Aug 2007
- > BOS Member, JNTUH College of Engineering Hyderabad
- > BOS Chairmen, Yogi Vemana University, Kadapa
- > Deputy Warden, Hostels, JNTU Pulivendula

#### -> Project/Research Guidance

#### - Students

Student Name	Title	Year	Download
D.Prabhavathi	Fault location in underground cables using wavelet transforms	2019	
MD.SAJID	SWITCHING SURGES IN LARGE INDUSTRIAL MOTORS AND REDUCTION OF TRANSIENT VOLTAGE DISTRIBUTION IN THE WINDING	2019	
M.RANJIT	SPACE VECTOR BASED PWM ALGORITHMS FOR MULTILEVEL INVERTER FED VECTOR CONTROLLED INDUCTION MOTOR DRIVE TO ACHIEVE SUPERIOR WAVEFORM QUALITY	2019	
B.SRAVAN KUMAR	IMPACT OF META-HEURISTIC METHODS ON OPTIMAL PLACEMENT AND TUNING OF FACTS DEVICES UNDER NETWORK CONTINGENCY	2019	
V.Madhusudana Reddy	BIDDING STRATEGIES IN ELECTRICAL POWER MARKET	2018	
P.Ramana	DESIGN AND IMPLEMENTATION OF A NON-LINEAR CONTROLLER AND OBSERVER FOR INVERTER FED PMSM DRIVE	2018	
S.Ramasubbanna	DETECTION AND CONTROL OF MAGNETIZATION LEVEL IN THE MAGNETIC CORE OF A MFDC RSWTS TRANSFORMER	2018	
N.Kartik	Power Quality Improvement by Active Filters Using AI Techniques	2018	
P.S.RAJESH	Modelling of metallic particle movement in gas insulated substation under the influence of SF6-N2 and sf6-co2 gas mixture	2018	
G.RADHIKA	Protection of high voltage transmission system against lightning over voltages	2018	
P.Balachennaiah	Optimization of real power loss and Voltage Stability limit using Firefly and symbiotic organisms search algorithms	2017	
K.Prakasam	ANALYSIS OF VERY FAST TRANSIENT OVER VOLTAGES IN GIS TRANSFORMERS USING WAVELET TECHNIQUES	2017	
R.Selvarasu	OPTIMAL LOCATION OF FACTS DEVICES TO IMPROVE POWER SYSTEM PERFORMANCE	2016	
N.Rajeswaran	NEURO-GENETIC IMPLEMENTATION OF FAULT DIAGNOSIS OF INDUCTION MOTOR BASED ON FIELD PROGRAMMABLE GATE ARRAY	2016	
G.Srinivasulu	TRANSMISSION EXPANSION PLANNING APPROACHES IN DEREGULATED POWER SYSTEMS FOR DEVELOPING COUNTRIES	2016	
C. Subba Rami Reddy	COMPARISON OF SEVERAL CONTROL STRATEGIES FOR PERMANENT MAGNET BRUSHLESS DC MOTOR	2015	
G. Naveen Kumar	ADVANCED COMPUTATIONAL AND HEURISTIC TECHNIQUES FOR POWER SYSTEM STABILITY ANALYSIS	2015	
V. Anantha Lakshmi	CONTROL STRATEGIES FOR DIRECT TORQUE CONTROLLED INDUCTION MOTOR DRIVES FOR REDUCED COMMON MODE VOLTAGE	2015	
K.Shashidhar Reddy	COHERENCE FUNCTION METHOD OF DETECTION AND ANALYSIS OF FAULT IN POWER TRANSFORMER WINDINGS	2015	
Y.Mohamed Shuib	ANALYSIS OF RADIAL DISTRIBUTION SYSTEM FOR LOSS MINIMIZATION USING ARTIFICIAL INTELLIGENCE TECHNIQUES	2015	
B. Arundhati	Design and Implementation of Non-Linear Vector Control for a High Performance Permanent Magnet Linear Synchronous Motor Drive	2015	
D. Bala Gangi Reddy	Available Transfer Capability Enhancement Using FACTS Controllers	2014	
C.Kamal Basha	Sensor less Control of Induction Motor	2014	

#### -> Countries/Foreign Universities

- > University of Texas, Dallas , 23-10-2014 To interact with the Professors
- > University of Texas, Dallas , 21-10-2007 To interact with the Professors
- > Imperial College of Engineering, London, U.K. , 02-07-2016 To interact with the Professors
- > IOWA state university, IOWA, USA , 19-10-2014 to 22-10-2014 Visited Renewable Source Wing
- > Carnegie Mellon university, Pittsburgh, USA , 01-08-2007 to 01-02-2008 For Post Doctoral
- > University of Texas, Dallas , 20-10-2006 To interact with the Professors

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