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**Field of Interest:**

Power System, Power Electronics, Intelligent Techniques,
Neural Network, Fuzzy Logic, Economic dispatch and Unit
Commitment

No. of Publications :84**Publication details****International Journals**

1. Senthil Kumar, S &Palanisamy, V 2007, 'A Dynamic Programming based Fast Computation Hopfield Neural Network for Unit Commitment and Economic Dispatch', International Journal of Electric Power System Research, vol. 77, pp. 917-925.
2. Latha, R &Senthil Kumar, S 2010, 'Segmentation of Linear Structures from Medical Images', Procedia Computer Science 2, pp. 303-306.
3. Ponniyinselvan, V &Senthil Kumar, S 2011, 'Throughput Analysis of Many to One Multihop Wireless Mesh Ad hoc Network', IJCSE, vol. 3, no. 9, pp. 3298-3303.
4. Rosy Salomi Victoria, D &Senthil Kumar, S 2012, 'Hybrid Trust Management', European Journal of Scientific Research, vol. 1, pp. 5-22.
5. Latha, R &Senthil Kumar, S 2012, 'Feature Extraction Using Watershed Transformation' Frontiers in Computer Education, pp. 899-906.
6. Latha, R &Senthil Kumar, S 2012, 'Linear Feature Extraction using Fuzzy Watershed Algorithm', European Journal of Scientific Research, vol. 72, no. 1, pp. 58-63.
7. Ponniyinselvan, V &Senthil Kumar, S 2012, 'An Optimized Ad Hoc on Demand Distance Vector Routing Protocol for Wireless Network', Journal of Computer Science 8(7), vol. 8(7), pp. 1177-1183.
8. Ponniyinselvan, V &Senthil Kumar, S 2013, 'A Hybrid optimization algorithm for Routing in Wireless Multihop Network', Life Science Journal, vol. 10(4s), pp. 499-504.

9. Rosy Salomi Victoria, D &Senthil Kumar, S 2013, 'Wireless network using optimized cooperative scheduling', Journal of Theoretical and applied information technology, vol. 57, no. 3, pp. 607-616.
10. Rajendran, S &Senthil Kumar, S 2013, 'A solar Power Generation for single phase AC residential load using Boost DC-AC inverter with variable structure Voltage Control', European Journal of Scientific Research, vol. 101, no. 2, pp. 232-245.
11. Rajendran, S &Senthil Kumar, S 2013, 'A single phase ac grid Tied Solar Power Generation using DC-AC inverter with Non linear state variable structure control', Australian journal of Basic and applied sciences, vol. 7, pp. 140-148.
12. Vivekananda Sibal, T &Senthil Kumar, S 2013, 'Three phase Multi pulse rectifier with controlled current injection and Line side transformer', Australian journal of Basic and applied sciences, vol. 7, issue. 12, pp. 9-17.
13. Rajendran, S &Senthil Kumar, S 2013, 'A solar power generation for single phase AC grid using boost DC-AC Inverter with nonlinear variable structure control', UPB Scientific Bulletin Series C: Electrical Engineering.
14. Sudhagar, G & Senthil Kumar, S 2013, 'VLSI design of efficient architecture in recursive pseudo-exhaustive two pattern generation', Journal of Theoretical and applied information technology, vol. 55, no. 2, pp. 232-239.
15. Latha, R & Senthil Kumar, S 2013, 'Extraction of Cardiovascular structures using artificial neural network and mathematical morphology', International review on computers and software(Praise worthy prize), vol. 8, no. 9, pp. 2075-2079.
16. Umasankar, P & Senthil Kumar, S 2013, 'A Novel approach for an enhanced high frequency matrix converter for induction heating application', International review on modelling and simulation, vol. 6, no. 6, pp. 1914-1921.
17. Senthilkumar, S, Rosy Salomi Victoria, 2013, 'Random Scheduling for exploiting throughput and TSMA scheduling for alleviating interference in wireless systems', International review on Computers and software, Vol. 8, No12.
18. Vivekananda Sibal, T &Senthil Kumar, S, 2014 'Three phase two 6 pulse AC-DC converter with current injection and line side transformer', Scientific bulletin.Series C, Vol. 76, Iss. 2.
19. Senthil Kumar, S & Ruby Meena, A 2014, 'Load frequency stabilization of four area hydro thermal system using superconducting magnetic energy storage system', International journal of Engg and Tech, Vol.6 No.3, pp. 1564-1572.
20. Senthil Kumar, S & Ruby Meena, A 2014, 'Modelling and analysis of three area thermal power system using conventional control system', Indian Journal of Electronics and Electrical Engg, Vo. 2. No.2, pp. 89-93.

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22. Senthilkumar, S & Senguttuvan, S 2014, 'Design and Implementation of a simple and efficient soft switched PWM Inverter for Induction motor drive', Research journal of applied science Engineering and Technology, Vol. 8, No.2, pp. 668-678.
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24. Senthilkumar, S & Balaji, N 2014, 'Fuzzy logic Control Based DC-DC Converter for Fuel Cell Application', Advancements in Electrical and Electronics Engineering, Vol. 6, No. 2, pp. 122-124.
25. Senthilkumar, S, Anguraj, SKS 2014, 'Design and control methodology of shunt active power filter for harmonic reduction', Advancements in Electrical and Electronics Engineering, Vol. 6, No.2, pp. 125-127.
26. Senthilkumar, S, Logavani, K 2014, 'Intelligent Techniques for Solving Unit Commitment Problem – A Review', Advancements in Electrical and Electronics Engineering, Vol. 6, No.2, pp.69-71.
27. S. Senthilkumar, S, Vivekananda Sibal, 2014, 'A Passive 36-Pulse AC-DC Converter with Inherent load Balancing using Combined Harmonic voltage and Current Injection', Indian journal of Electrical and Electronics Engg, Vol.2. No. 2. Pp. 72-78.
28. Senthilkumar, S, & Venkatesan, P 2014 'Wind and Solar Energy Conversion System Using MPPT Based Power Electronics', Singaporean Journal of Scientific Research, Vol. 6. No.5, pp. 235-240.
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32. S. Rajendran and S. Senthil Kumar, 2014, 'A Modified Sinusoidal Pulse Width Modulation Control Technique Based Single Phase Grid Connected Single Stage Boost Inverter'Research Journal of Applied Sciences, Engineering and Technology
33. Umasankar P, Dr.S.Senthilkumar, 2014 'Fuzzy Logic Control of Single Phase Matrix Converter Fed Induction Heating System', International Journal of Engineering and Technology (IJET)Vol 6 No 3.
34. Senthilkumar, S &Logavani, K 2015, 'A New Hybrid Approach For Profit-Based Unit Commitment Using Particle Swarm Optimization With LagrangianRelaxati', International Journal of Applied Engineering Research, Vol.10, No. 8, pp. 21045-21058.
35. Senthilkumar, S &Logavani, K 2015, 'A Hybrid genetic algorithm based Lagrangian relaxation approach for profit based unit commitment problem', ARPN Journal of Engineering and Applied Sciences, Vol. 10, No.14.
36. Senthilkumar, S &Kalaiselvan, K 2015, 'DTC Scheme of Cascaded H bridge Nine-Level Inverter Fed Induction Motor', Global Journal of Pure and Applied Mathematics, Vol. 11, No. 2, pp. 201-216.
37. Senthilkumar, S &Kalaiselvan, K 2015, 'Harmonic analysis on asymmetrical hybrid multilevel inverter based induction motor drive', Scientific bulletin series C, Vol. 77, No.2, pp. 235-244.
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39. Senthilkumar, S, Karthikeyan, B &Senthilkumar, S 2015, 'Automatic positioning and optimal inclination angles of photovoltaic panels for maximum power output', International journal of applied engineering research, Vol. 10, No. 14, pp. 34779-34784.

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45. Senthilkumar, N, Balaji, N 2016, 'Fuel cell application in vehicle by novel fuzzy logic based dc-dc converter', Asian journal of Research in Social Sciences and Humanities, Vol.6, No. 10, pp.846-856.
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50. Senthilkumar, S, Logavani, K, 2017, 'LamdaOptimisation of constraint violating units in short-term thermal unit commitment using modified dynamic programming', Turkish Journal of Electrical Engineering and Computer Sciences, Vol. 25, pp. 1311-1327.
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52. Senthilkumar, S, Karthiga Jaya, B, 2018, "Image Registration based Cervical Cancer Detection and Segmentation Using ANFIS Classifier", Asian Pacific Journal of Cancer prevention, Vol. 19, pp. 3203-3209. DOI:10.31557/APJCP.2018.19.11.3203.
53. Senthilkumar, S, Abarna, C, 2020, "Design of modified Z-source DC-DC converter", International Journal for Modern Trends in Science and Technology, Vol. 06, No.2, pp. 94-98.
54. Senthilkumar, S, Sangeetha, K, 2020, "A high voltage gain modified SEPIC converter", International Journal for Modern Trends in Science and Technology, Vol. 06, No.2, pp. 84-89.
55. Senthilkumar, S, Suresh, V, 2020, "Optimal reactive power dispatch for minimization of real power loss using SBDE and DE-strategy algorithm", Journal of Ambient Intelligence and Humanized Computing, DOI 10.1007/s12652-020-02673-w.
56. Senthilkumar, S, Priyadharshini, D, 2021, "Three Phase Buck-Boost Converter with Fuzzy Logic Controller for Aircraft Applications", International Journal of Creative Research Thoughts, ISSN: 2320-2882, Vol. 9, issue 3, pp. 5894-5909.
57. Senthilkumar, S, Sakthivel, L, 2021, "PID- Fuzzy Logic Control of Forward Buck Converter for Modern Aircraft Application", International Journal of Creative Research Thoughts, ISSN: 2320-2882, Vol. 9, issue 3, pp. 5615-5626.

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2. Senthil Kumar, S &Palanisamy, V 2006, 'Application of Dynamic Programming based Fast Computation Hopfield Neural Network to Unit Commitment and Economic Dispatch', Journal of Power and River valley Development, pp. 183-190.
3. Senthil Kumar, S &Palanisamy, V 2006, 'Application of Neural based Fuzzy to Unit Commitment', Journal of Computer Science, vol. 1, pp. 513-523.
4. Senthil Kumar, S &Palanisamy, V 2007, 'A Fast Computation Hopfield Neural Network Method to Unit Commitment', Journal of Institution of Engineers, vol. 88, pp. 3-9.
5. Senthil Kumar, S &Palanisamy, V 2007, 'A New Thermal Unit Commitment Approach using Hopfield Neural Network and Dynamic Programming', Journal of Central Power Research Institute, vol. 3, no. 2, pp. 127-132.
6. Senthil Kumar, S &Palanisamy, V 2008, 'A Hybrid Fuzzy Dynamic Programming Approach to Unit Commitment', Journal of Institution of Engineers, vol. 88, pp. 3-9.

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1. Senthil Kumar, S &Palanisamy, V 2006, 'A New Dynamic Programming Based Hopfield Neural Network to Unit Commitment and Economic Dispatch', IEEE International Conference on Industrial Technology.
2. Senthil Kumar, S &Palanisamy, V 2006, 'A Fast Computation Hopfield Neural Network Method to Economic Dispatch', Proceedings of International Conference on RUIS, pp. 433-438.
3. Senthil Kumar, S &Palanisamy, V 2006, 'Adaptive Hopfield Neural Network for Economic Dispatch', Proceedings of International Conference on RUIS, pp. 439-444.
4. Latha, R &Senthil Kumar, S 2010, 'Robust segmentation of blood vessels from angiographic images of human heart', International Conference on Communication and computational intelligence, pp. 174-177.
5. Latha, R & Senthil Kumar, S 2010, 'Edge detection of blood vessels in cardiac images using mathematical morphology', International Conference on Embedded system.
6. Rosi& Senthil Kumar, S 2012, 'Scheduling disciplines supporting differentiated services', AEEICB.

7. Madhananand, S & Senthil Kumar, S 2014, 'Three-Level Improved Full-Bridge DC-DC converter for wind energy conversion systems', International Conference on Advancements in Electrical and Electronics Engineering.
8. Devipriya, A & Senthil Kumar, S 2014, 'High gain DC-DC converter for photovoltaic applications', International Conference on Advancements in Electrical and Electronics Engineering.
9. Senthil Kumar, S & Rubymeena, A 2014, 'Modelling and analysis of three area thermal power system using conventional controllers', International Conference on Advancements in Electrical and Electronics Engineering.
10. Senthilkumar, S, Senguttuvan, S 2015, 'Efficient minimum component soft switched improved delta modulated PWM inverter for three phase induction motor drives', International Conference on Electrical Electronics and Communication Engineering.

National Conference

1. Senthil Kumar, S & Palanisamy, V 2005, 'A New Hopfield Network for Unit Commitment and Economic Dispatch', Proceeding of National Conference on MTEIS, pp. 455-463.
2. Senthil Kumar, S & Palanisamy, V 2006, 'A Hybrid Fuzzy Dynamic Programming Approach to Unit Commitment', National Conference on MTEES.
3. Senthil Kumar, S & Palanisamy, V 2006, 'Application of Neural Network Based Fuzzy logic to Thermal Unit Commitment', National Conference on MTEES.
4. Senthil Kumar, S & Palanisamy, V 2003, 'A Neural Network based Simulated Annealing algorithm for Thermal Unit Commitment', All India Seminar on SEBC.
5. Senthil Kumar, S 2013, 'An integrated resonant Boost converter for photovoltaic Applications', National Conference, NCEIS 2013
6. Senthil Kumar, S 2013, 'Optimized isolated boost converter for fuel cell application', National Conference NCEIS 2013
7. Senthil Kumar, S 2013, 'Efficiency improvement in single phase transformer less PV inverter using HB-ZVR topology', CCTS, 2013
8. Senthil Kumar, S 2010, 'Capacitor and diode clamped multilevel inverter', NCEIS, 2013.
9. Senthilkumar, S 2019, 'Integrating two stages into common mode transformerless Photovoltaic converter', National Conference on Emerging technologies in Electrical Systems.

10. Senthilkumar, S 2019, 'Integrating two stages into common mode transformerless Photovoltaic converter', National Conference on Emerging technologies in Electrical Systems.
11. Senthilkumar, S 2019, 'Single phase dual output Inverter', National Conference on Emerging technologies in Electrical Systems.

$$57+6+10+11 = 84$$

Finished Master Thesis Directed:

1. O.S. Ravichandran, "Variable voltage variable frequency control of voltage source PWM inverter fed Induction Motor" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2005.
2. P.Jamuna, "New Quasi-Resonant DC-Link PWM inverter fed Induction Motor" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2005.
3. K. Gayathri, "Performance of a DC motor fed from series Quasi-Resonant Converter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2005.
4. E. Devanand, "Fuzzy logic controller for AC Drives" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2005.
5. M. Ranjani, "A step-down frequency modulated zero-current switching Quasi-Resonant converter fed DC drive" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2005.
6. J. Kalaiselvi, "A modern three level DC-DC converter with ZVZCS technique" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2005.
7. P. Veena, "A novel strategy of torque and flux control for Switched Reluctance Motor drive" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2006.
8. R. Sathish Kumar, "Multi input DC to DC converter based on multiwinding transformer for renewable energy applications" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2006.

9. R. Arulmozhiyal, "A new method of power conversion using impedance source inverter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2006.
10. V. Gopu, "Sensorless control of Brushless DC motor" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2006.
11. C. Elavarasi, "A multilevel voltage source converter system with balanced DC voltages" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, July 2007.
12. M. Tamilvanan, "A new three-phase AC-AC Z-Source converter for AC drives" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, July 2007.
13. A. Rajkumar, "The fast response double buck DC-DC converter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, July 2007.
14. K. Vasudevan, "Capacitive turn-off snubbing, ZVT-On DC-DC converter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, July 2007.
15. J. Karthika, "A new unity power factor input approach for AC drive applications" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, July 2007.
16. V. Soniah, "Design of Buck-Boost Inverter with new control strategy" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, July 2008.
17. S. Saravanakumar, "AC-AC conversion using capacitor clamped multilevel matrix converter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2009.
18. R. Sasikala, "Analysis and design of a novel three phase AC-DC Buck Boost Converter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2009.
19. K. Dineshkumar, "Capacitor and Diode clamped Multilevel Inverter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, June 2010.

20. M. Sathishkumar, "Nine level cascaded H-Bridge DC-AC grid tied inverter interface with solar photovoltaic cell" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2011.
21. S. Sri Krishna Kumar, "Microcontroller based H-Bridge Cascaded Multilevel Inverter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2011.
22. M.Priya, "A new high efficiency single phase transformerless photovoltaic inverter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2013.
23. C. Boopalan, "An integrated boost resonant converter for photovoltaic application" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2013.
24. A. Devipriya, "High efficiency DC-DC converter for low voltage photovoltaic sources" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2014.
25. S. Madhananand, "Improved Full-Bridge Three-Level DC/DC converter for wind turbines in a DC grid" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2014.
26. E. Harish, "Single Transistor active injection enabled high performance Multiple Rectifier", Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2015.
27. M. Kalaiselvi, "Combination of Harmonic Voltage and Current Injection in 36 pulse Converter", Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2015.
28. S.sunitha, "A Load Adaptive ZVS Auxiliary Circuit For Three-Level DC-DC Converter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2016.
29. R.kaviya, "A Typical Half-Bridge Single-Phase Grid Tied Inverter With An Improved Efficiency" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2016.
30. R.mahadevan, "A Simplified Seven Level Inverter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2017.

31. R.shwini Sophia, "Three Phase Simplified Symmetrical Multilevel Inverter" Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2017.
32. S. sujitha, "Bidirectional DC-DC Converter For Energy Storage Systems." Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2018.
33. K. monisha, "A Single phase Transformerless Inverter For Grid Tied PV Application," Faculty of Electrical Engineering, Government College of Engineering, Salem, Anna University, May 2018.