

#### Publications of Dr.D.Devaraj (2015-2020)

1. P.Ganesan, M.Thirugnanasambandam, S.Rajakarunakaran, D.Devaraj, "Specific energy consumption and CO<sub>2</sub> emission reduction analysis in a textile industry", Green energy, Taylor and Francis, 12, 2015, pp. 685-693.
2. R.Jeevajoithi, D.Devaraj, "A new approach for Constant DC Link Voltage in a direct drive variable speed wind energy conversion system", Journal of Electrical Engineering & Technology, Vol.10, No. 2, March 2015, pp. 529-538.
3. A. Devi Arockia Vanitha, D. Devaraj, M. Venkatesulu and S. Krishnaveni, "An empirical analysis of gene selection using machine learning algorithms for cancer classification", International Journal of Applied Engineering Research, Vol. 10, No. 3, 2015, pp. 7909-7922.
4. M. Krishna Paramathma, D. Devaraj and R. Malaikannan, "Development of real time monitoring system under smart grid environment", ARPN Journal of Engineering and Applied Sciences, Vol. 10, No. 5, Mar 2015, pp. 2177-2181.
5. P.Ganesan, S.Rajakarunakaran, M.Thirugnanasambandam, D.Devaraj, "Artificial Neural Network model to predict the diesel electric generator performance and exhaust emissions", Energy, 83, 2015, pp. 115-124.
6. S. Sheik Mohammed, D. Devaraj, "Fuzzy based Maximum Power Point Tracking Controller for Stand-alone Photovoltaic system using MATLAB/Simulink", International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10, No.55 (2015), 3101-3106
7. S.Sivakumar and D. Devaraj, 2015, "Congestion Management by Generator Rescheduling and FACTS devices using Multi objective Genetic Algorithm", International Research Journal of Engineering & Technology (IRJET), June 2015 pp. 1377 - 1384.
8. C.Devi Arockia Vanitha, D.Devaraj and M. Venkatesulu, "Gene Expression Data Classification using support Vector Machine and Mutual Information based Gene Selection" Proceedia Computer Science, Vol. 47, 2015, pp. 13-21.
9. ST Suganthi, D Devaraj, SH Thilagar, "An Improved Differential Evolution Algorithm for Congestion Management considering Voltage Stability", Indian Journal of Science and Technology 8 (24), 2015
10. R Prathiba, B Moses, D Devaraj, MK Pandi, "Evolutionary Algorithm for Estimation of Available Transfer Capability in Deregulated Environment", Middle-East Journal of Scientific Research 23 (9), 2015, pp. 2099-2105
11. Saradh Prasad, K.H. Ibnaouf, M.S. AISalhi, D. Devaraj, V. Masilamani, High power amplified spontaneous emission from an oligomer in solution, Journal of Luminescence, 168, 2015, pp. 109-113.
12. S Prasad, KH Ibnaouf, MS AISalhi, K Alameh, D Devaraj, A Hamdan, Karim MR, Zaman MB, Masilamani V, "Laser from optically pumped quantum dot cdse/zns in a colloidal liquid ", Journal of Nanoscience and Nanotechnology, Vol. 15, No.9, Sep. 2015 pp. 6710–6713.
13. P Venkataramana, JP Roselyn, C Nithya, D Devaraj, SS Dash, "A comparative study topologies in grid connected photo voltaic system for efficient behavior and harmonic reduction", Indian Journal of Science and Technology, Vol. 9, 2016.
14. R. Murugeswari, S. Radhakrishnan and D. Devaraj, "A multi-objective evolutionary algorithm based QoS routing in wireless mesh network", Applied Softcomputing, 40, 2016, 517-525.
15. S. Sheik Mohammed, D. Devaraj and T.P. Imthias Ahamed, "Modeling, Simulation and analysis of Photovoltaic modules under partially shaded conditions", Indian Journal of Science and Technology, Vol. 9, Issue 16, April 2016.

16. R Prathiba, B Moses, D Devaraj, MK Pandi, "Multiple output radial basis function neural network with reduced input features for on-line estimation of available transfer capability, Journal of Control Engineering and Applied Informatics, Vol. 18, No.1,2016. pp. -106.
17. S. Sheik Mohammed, D. Devaraj and T.P. Imthias Ahamed, "A novel hybrid maximum power point technique using Perturb & Observe algorithm and Learning Automata for solar PV system, Energy, Vol. 112, 2016. pp.1096 – 1106.
18. P.Duraipandy and D.Devaraj, "Extreme Learning Machine approach for real time voltage security monitoring in a smart grid system using synchronized phasor measurements", Journal of Electrical Engineering & Technology, Vol. 11, No. 6, 2016. pp. 1527-1534.
19. V.Agnes Idhaya Selvi, D.Devaraj, R.Narmatha Banu and M. Karuppasamy Pandian, "Differential Evolution Algorithm for Computation of ATC in Deregulated Power System" International journal of Control theory and Applications. Vol. 9, No. 15, 2016, pp. 7073-7080.
20. P.Duraipandy and D.Devaraj, "Fast and accurate estimation of power system loading margin using Extreme Learning Machine with reduced input attributes", International journal of Control theory and Applications, 9 (16), 2016, pp. 8235-8243.
21. G.B. Sreeja, P.Rathika and D.Devaraj, "Identification of breast tumors by Wavelet based adaptive windowing technique with statistical features using back propagation neural network", International Journal of Engineering and Future Technology, 10 (10), pp. 1-20.
22. A. Devi Arockia Vanitha, D. Devaraj, M. Venkatesulu "Multi class cancer diagnosis in micro array gene expression profile using mutual information and Support Vector Machine" Intelligent Data Analysis, 20(6), 2016, pp. 1425-1439.
23. VM Kalyani, JP Roselyn, C Nithya, D Devaraj, "Enhanced crowbar protection for fault ride through capability of wind generation", International journal of Power Electronics and Drive Systems, Vol. 7 No. 4, Dec. 2016.
24. P. Aruna jeyanthi, D. Devaraj and S.N. Rekha," Multi-objective Genetic Algorithm for Optimal Power Flow Including Voltage Stability", Vol.9, No. 32, 2016, pp. 49 – 56.
25. V.Agnes Idhaya Selvi, D.Devaraj, R.Narmatha Banu and M. Karuppasamy Pandian, "Estimation of Dynamic ATC including Hopf Bifurcation limit using step by step algorithm", International Journal of Power and Energy Conversion System-Inter science, 8 (2), 2017, 113-131.
26. S. Sheik Mohammed, D. Devaraj and T.P. Imthias Ahamed, "Learning Automata based Fuzzy MPPT controller for solar photovoltaic system", Journal of Intelligent and Fuzzy Systems, 32 (4), 2017, 3031-3041.
27. S Prasad, HS AlHesseny, MS AlSalhi, D Devaraj, V Masilamai, A high power, frequency tunable colloidal quantum dot (cdse/zns) laser, Nanomaterials 7 (2), 29, 2017.
28. S Abdulaziz Alfahd, S Prasad Rajendra, W Al-Mujammi, D Devaraj, An Efficient Violet Amplified Spontaneous Emission (ASE) from a Conjugated Polymer (PFO-co-pX) in Solution, Materials 10 (3), 265, 2017.
29. S.Karthika, Dr.P.Rathika and Dr.D.Devaraj, "Development of Fuzzy Logic- Based Control Strategy for MPPT for Solar Photovoltaic System under Varying Irradiation, Temperature and Load Conditions", International Journal for Modern Trends in Science and Technology, Vol. 03, Issue 06, June 2017, pp. 166-173.
30. Agnes Velusamy, Devaraj Durairaj, Narmatha Banu, Karuppasamy Pandian "DEA- based optimal SVM for Online Dynamic ATC estimation incorporating Transmission Capacity

Margins”, International Transactions on Electrical Energy Systems, Vol. 27, Issue 7, July 2017.

31. Mohamad S. AlSalhi, Saradh Prasad Rajendra, Devaraj Durairaj, Ziad S. Abo Mustafa, “Gamma-irradiation effects on the spectral and amplified spontaneous emission (ASE) properties of conjugated polymers in solution”, *Polymers*, 9 (1), 2017.
32. Thirugnana Sambandan, Madloul, N.A., Saidur, R., Devaraj Durairaj and Rajakarunakaran,” Investigation of energy saving potentials in T-junction and elbow in compressed air systems”, *Energy Efficiency*, 10(5), pp. 1099-1113, 2017.
33. JP Roselyn, D Devaraj, SS Dash, Voltage-based reactive power pricing in deregulated environment using hybrid multi-objective particle swarm optimization, *International Journal of Ambient Energy*, Vol. 39, No. 3, 2018, pp. 285–296.
34. S.T.Suganthi, D.Devaraj, K.Ramar and S.Hosimin Thilagar, “An Improved Differential Evolution algorithm for Congestion Management in the presence of Wind Turbine Generators”, *Renewable & Sustainable Energy Reviews*, Vol. 81, No. 1, 2018, pp.635–642.
35. K.Gobi, B.Kannapiran, D.Devaraj and K.Valarmathi, “Design, Development and Performance Evaluation of Pressure Sensor using Eddy Current Displacement Sensing Coil,” *Sensor Review*, Vol. 38, No. 2, 2018, pp. 248 – 258.
36. K.Gobi, B.Kannapiran, D.Devaraj and K.Valarmathi, “Design, Development and Performance Evaluation of Eddy Current Displacement Sensor based Pressure Sensor with Target Temperature Compensation,” *Defense Science Journal*, Vol. 68, No. 2, 2018, pp. 203 – 209.
37. M. Krishna Paramathma , D.Devaraj K.S. Swathikumar Development and implementation of advanced metering infrastructure for efficient energy utilization in smart grid environment, *International Transactions on Electrical Energy Systems*, Vol.28, No.3, March 2018.
38. S. Prasad, G.Durai, D. Devaraj, M.S. Alsalhi, J. Theethagiri, P. Arunachalam, M. Gurulakshmi, M. Raghavender and P. Kuppusami, “3D nanorhombus nickel nitrate as stable and cost-effective counter electrodes for dye-sensitized solar cells and super capacitor applications,” *RSC Advances*, Vol. 8, No. 16, 2018, pp. 8828 – 8835.
39. R. Vijayanand, D. Devaraj and B. Kannapiran, “A Novel Intrusion Detection System for Wireless Mesh Network with Hybrid Feature Selection Technique based on GA and MI”, *Journal of Intelligent and Fuzzy System*, Vol. 34, No. 3, 2018, pp. 1243 – 1250.
40. M.H. Shwehdi, S.R. Mohamed, D. Devaraj, “Optimal capacitor placement on West–East inter-tie in Saudi Arabia using genetic algorithm”, (2018) *Computers and Electrical Engineering*, 68, pp. 156-169.
41. J.P Roselyn, D Devaraj, Adaptive multi objective differential evolution with fuzzy decision making in preventive and corrective control approaches for voltage security enhancement (2018) *Journal of the Franklin Institute*, 355 (11), pp. 4553-4582.
42. R. Vijayanand, D. Devaraj and B. Kannapiran, “Intrusion Detection System for Wireless Mesh Network using Multiple Support Vector Machine Classifiers with Genetic-Algorithm-Based Feature Selection,” *Computers and Security*, 77, pp. 304-314.
43. S. Raja Mohamed, P. Aruna Jeyanthi, D. Devaraj, “Hysteresis-based Voltage and Current Control Techniques for Grid Connected Solar Photovoltaic Systems: Comparative Study”, *International Journal of Electrical and Computer Engineering (IJECE)*, Vol. 8, No. 5, October 2018, pp. 2671-2681.

44. J. Jeyaranjani and D.Devaraj, "Machine learning algorithm for efficient power theft detection using smart meter data", International Journal of Engineering & Technology, Vol. 7, 2018, pp. 900-904.
45. N. Raghupathi Muthu and D.Devaraj, "Development and performance analysis of IoT based real time Solar PV monitoring system", International Journal of Pure and Applied Mathematics, Vol. 120, No. 6, 2018, pp. 6905-6923.
46. S.T.Suganthi, D. Devaraj, S. Hosimin Thilagar, K. Ramar, "Optimal generator rescheduling with distributed slack bus model for congestion management using improved teaching learning based optimization algorithm", Sadhana - Academy Proceedings in Engineering Sciences, 43(11), 2018, pp. 181
47. B Kanaga Sakthivel, D Devaraj, R Narmatha Banu, V Agnes Idhaya Selvi, "A hybrid wind-solar energy system with ANFIS based MPPT controller", Journal of Intelligent & Fuzzy Systems, vol. 35, no. 2, pp. 1579-1595, 2018.
48. S.T.Suganthi, K. Ramar, S. Hosimin Thilagar, D. Devaraj, "A novel approach for congestion management using improved differential evolution algorithm" International Transactions on Electrical Energy Systems, Vol. 28, No. 10, October 2018, e2614.
49. J. Preetha Roselyn, R. Annie Uthra, Ajith Raj, D.Devaraj, Pranav Bharadwaj and Sai Vijay Deeraaj Krishna Kaki, "Development and Implementation of Novel Sensor Fusion Algorithm for Occupancy Detection and Automation in Energy Efficient Buildings", Sustainable Cities and Society, Volume 44, January 2019, Pages 85-98.
50. A. Robert singh, D. Devaraj, R. Narmatha Banu, "Geographic HWMP (Geo-HWMP) routing method for AMI network with lossless packet forwarding" IET Cyber-Physical Systems: Theory & Applications, 4 (1), 2019, 68-78.
51. A. Robert singh, D. Devaraj, R. Narmatha Banu, "Genetic Algorithm-Based Optimization of Load-Balanced Routing for AMI with Wireless Mesh Networks", Applied Soft Computing Journal, 74, 2019, 122-132.
52. SN Rekha, PA Jeyanthi, D Devaraj, "[Relevance vector machine based fault classification in wind energy conversion system](#)" International Journal of Electrical and Computer Engineering 9 (3), 2019, 1506-1513.
53. SR Mohamed, PA Jeyanthi, D Devaraj, MH Shwehdi, A Aldabahi. "DC-Link Voltage Control of a Grid-Connected Solar Photovoltaic System for Fault Ride-Through Capability Enhancement", Applied Sciences 9 (5), 2019, 952.
54. S Prasad, D Devaraj, R Boddula, S Salla, MS AlSalhi, "[Fabrication, Device Performance, and MPPT for Flexible Dye-Sensitized Solar Panel based on Gel-Polymer Phthaloylchitosan Based Electrolyte and Nanocluster CoS<sub>2</sub> counter electrode](#)", Materials Science and Energy Technologies, Vol. 2, 2019, pp. 319-328.
55. M. S. Ulaganathan and D. Devaraj, "A novel MPPT controller using Neural Network and Gain-Scheduled PI for Solar PV system under rapidly varying environmental condition", Journal of Intelligent & Fuzzy Systems, 37(1), pp. 1085-1098.
56. Gobi, K., Kannapiran, B., Devaraj, D., Valarmathi, K., "Design, performance evaluation and analysis of the inlet tube of pressure sensor for chamber pressure measurement", Sensor Review, Vol. 39, No. 4, 2019, 612-621.

57. M. Jansi Rani and D.Devaraj, "Two-Stage Hybrid Gene Selection Using Mutual Information and Genetic Algorithm for Cancer Data Classification", Journal of Medical Systems 43(8),235
58. M. Jansi Rani and D.Devaraj, "Multi-class Microarray Dataset Classification using MI-based feature selection and Support Vector Machine" Journal of Advanced Research in Dynamical and Control Systems" 11, pp. 1169-1174.
59. Sulaiman, S.M., Aruna Jeyanthi, P., Devaraj, D., "Smart meter data analysis using big data tools", Journal of Computational and Theoretical Nanoscience, 16(8), 2019, pp. 3629-3636.
60. Rekha, S.N., Jeyanthi, P.A., Devaraj, D., "Multikernel multiclass relevance vector machine for simultaneous fault detection in benchmark model of wind generation systems", Journal of Computational and Theoretical Nanoscience, 16(8), 2019, pp. 3504-3509
61. Indira, B., Valarmathi, K., Devaraj, D., "An approach to enhance packet classification performance of software-defined network using deep learning", Soft Computing, 23(18), 2019, pp. 8609-8619
62. J. Kohila, D.Devaraj, "Development and Performance analysis of PSO optimized Sliding Mode Controller based Dynamic Voltage Restorer for power quality enhancement" International Transactions on Electrical Energy Systems (Article in Press).
63. B. Kiruthiga, R. Narmatha Banu, and D. Devaraj, "Detection and classification of power quality disturbances or events by adaptive NFS classifier", Soft Computing (Accepted for publication)
64. S. Ulaganathan and D.Devaraj, "Programmable DC Power Supply based Solar PV Module Emulator using LabVIEW and Multisim". International Journal of Renewable Energy Research (IJRER), (Accepted for publication)
65. Jebakumari,V.S., Saravanan,D.S., Devaraj,D.,"Seizure detection in EGG signal with novel optimization algorithm for selecting optimal thresholded offset Gaussian feature", Biomedical Signal Processing and Control (Accepted for Publication)