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Qualification

- B.E. (Electrical and Electronics Engineering)
- M.E. (Power Electronics and Drives)
- Ph.D. (Electrical Engineering)

Experience

- 01.06.2005 to 07.06.2008: Lecturer - RVS College of Engg. & Tech., Dindigul
- 20.06.2008 to 30.06.2009 : Lecturer - MEPCO Schlenk Engg College, Sivakasi
- 01.07.2009 to 31-05-2013 :Assistant Professor - MEPCO Schlenk Engg College, Sivakasi
- 01-07-2013 to 04-04-2014: Associate Professor - Syed Ammal Engg College, Ramanathapuram
- 05-04-2014 to Till date: Professor - Syed Ammal Engg College, Ramanathapuram

Papers Published/Accepted

Published Articles

1. P. Veera Manikandan and **S.Selvaperumal** “EANFIS-based Maximum Power Point Tracking for Standalone PV System” IETE Journal of Research, Published online: 14 Jul 2020 (DOI: <https://doi.org/10.1080/03772063.2020.1788425>)
2. G.Prabhakar, **S.Selvaperumal**, P. Nedumal Pugazhenth, K.Umamaheswari and P.Elamurugan “Online optimization based model predictive control on two wheel Segway system” Elsevier-materials today proceedings, Published online: 15 Jul 2020 (DOI: <https://doi.org/10.1016/j.matpr.2020.06.227>)
3. R, Senthil Ganesh, P, Karuppasamy, A, Abudhahir, R, Vinoth, and **S.Selvaperumal** “3D Modelling of MFL Imaging System to Detect the Diverse Surface Defects in

- Ferromagnetic Tubes” Materials Evaluation, (2020): 78(3): 379 – 386 (**DOI: doi.org/10.32548/2020.me-04078**)
4. S. Lakshmi Kanthan Bharathi and **S.Selvaperumal** “MGWO-PI controller for enhanced power flow compensation using unified power quality conditioner in wind turbine squirrel cage induction generator” Microprocessors and Microsystems, (2020) 76: [1](https://doi.org/10.1016/j.micpro.2020.103080) – 8 (**https://doi.org/10.1016/j.micpro.2020.103080**)
 5. P.Veeramanikandan and **S.Selvaperumal** “A Fuzzy - Elephant Herding Optimization technique for Maximum Power Point Tracking in the Hybrid Wind-Solar system” International Transactions on Electrical Energy Systems, September (2019): [1](https://doi.org/10.1002/2050-7038.12214) – 14 (**https://doi.org/10.1002/2050-7038.12214**)
 6. N. Balamurugan and **S. Selvaperumal** “Experimental Analysis of Performance and Thermal Capability of Three Phase Squirrel Cage Induction Motor Using Plastered Composite Conductors” Current Nanomaterials, (2019): 4(3): 201 – 205 (**DOI : 10.2174/2405461504666190912144746**).
 7. Asokan Sivaprakash, Samuel Nadar Edward Rajan and **Sundaramoorthy Selvaperumal**," Privacy Protection of Patient Medical Images using Digital Watermarking Technique for E-healthcare System." Current Medical Imaging (Formerly: Current Medical Imaging Reviews), (2019): 15(8): 802 – 809 (DOI: 10.2174/1573405615666190408115158).
 8. Sivaprakash, Asokan; Rajan, Samuel Nadar Edward; **Selvaperumal, S.**," A Novel Robust Medical Image Watermarking Employing Firefly Optimization for Secured Telemedicine." Journal of Medical Imaging and Health Informatics (2019): Volume 9, Number 7, September 2019, pp. 1373-1381(9) (<https://doi.org/10.1166/jmihi.2019.2759>).
 9. Shyamala Balakumar, **Selvaperumal Sundaramoorthy**, Ramasubramanian Bhoopalan, G. Prabhakar, “Detection of Moving Object in Dynamic Visual Sequences Based on Partial Least Squares Classifier.” Journal of Medical Systems, (2019) 43: 259. (<https://doi.org/10.1007/s10916-019-1386-2>).
 10. Sundaram, Sivagama Sundari Meenakshi, **Sundaramoorthy Selvaperumal**, " A grid-connected asymmetrical cascaded H-bridge 81 level inverter with single PV unit and voltage splitting multi winding isolation transformer in marine applications." IJMS, (2019): 716-723.
 11. Tae Keun Yoo, Joon Yul Choi, Jeong Gi Seo, Bhoopalan Ramasubramanian, **Sundaramoorthy Selvaperumal**, Deok Won Kim" The possibility of the combination of OCT and fundus images for improving the diagnostic accuracy of deep learning for age-related macular degeneration: a preliminary experiment." Medical & Biological Engineering & Computing, Springer Berlin Heidelberg, (2018): 1-11, ISSN: 0140-0118
 12. G. Prabhakar & **S. Selvaperumal** “Formation Control of Cyber Physical Robots in Marine Applications” *Indian Journal of Geo-Marine Science, NISCAIR-CSIR, India, Vol. 47 (08), August 2018, pp. 1679-1687(2018).*
 13. Prabhakar Gunasekaran, **Selvaperumal Sundaramoorthy**, Nedumal Pugazhenthii Pulikesi " Fault data injection attack on car-following model and mitigation based on interval type-2 fuzzy logic controller." IET Cyber-Physical Systems: Theory & Applications (2019): Vol.4, issue.2, pp.128-138.
 14. G. Prabhakar, **S Selvaperumal** and P. Nedumal-Pugazhenthii. " Fuzzy PD Plus I Control-based Adaptive Cruise Control System in Simulation and Real-time Environment." IETE Journal of Research 65(1) (2019): pp69-79, <https://doi.org/10.1080/03772063.2017.1407269>

15. Anna Raja K*, Saravana Sundaram S, **Selvaperumal S**, Prabhakar G " ANN-based Maximum Power Point Tracking for a Large Photovoltaic Farm Through Wireless Sensor Networks." *Current Signal Transduction Therapy* (2019): Vol.14 (2) pp. 38-48.
16. A. Shyamala, **S. Selvaperumal***, Prabhakar G " Anfis Classifier Based Moving Object Detection and Segmentation in Indoor and Outdoor Environments." *Current Signal Transduction Therapy* (2019): Vol. 14 (2) pp. 21-30.
17. B.Ramasubramanian and **S Selvaperumal** "Efficient Approach for the Automatic detection of Hemorrhages in Color Retinal Images." *IET Image Processing* (2018): Vol.12 (9) pp.1550-1554.
18. **S Selvaperumal**, MS Sundari. " A Comparative Analysis of Multicarrier Modulation Strategies for Cascaded H-Bridge Multilevel Inverter." *Journal of Computational and Theoretical Nanoscience* 14.12 (2017): 6020-6029, ISSN:1546-1955
19. Sivakumar Palanisamy, Vairamani Rajasekaran, **Sundaramoorthy Selvaperumal** " Design and Analysis of FPGA Controller Based Pulse Width Modulation Boost Rectifier in Marine Applications." *Journal of Computational and Theoretical Nanoscience* 14.12 (2017): 5851-5857, ISSN:1546-1955
20. **S Selvaperumal**, PN Pugazhenth, A Amudha – 2017 "Closed loop performance investigation of various controllers based chopper fed DC drive in marine applications" *Indian Journal of Geo-Marine Science, NISCAIR-CSIR, India.*
21. KS Banu, P Karuppasamy, **S Selvaperumal** - 2017 "Modal based analysis of binary adders with fault tolerance using QCA in marine applications" *Indian Journal of Geo-Marine Science, NISCAIR-CSIR, India.*
22. **S Selvaperumal**, S Muralidharan, P Nedumal Pugazhenth, G Prabhakar, J Nazaren, Parthiban P Gnanaskanda, P Karuppa Samy- 2017 "Performance Investigation of SHE PWM Implementation of GA Based LCL Resonant Inverter in Marine Applications" *Indian Journal of Geo-Marine Science, NISCAIR-CSIR, India.*
23. Gomathy, V., and **S. Selvaperumal**. "Fault detection and classification with optimization techniques for a three-phase single-inverter circuit." *Journal of Power Electronics* 16.3 (2016): 1097-1109.
24. **S Selvaperumal**, PN Pugazhenth, S. Vijayarajan– 2016 "Performance Investigation of Genetic Algorithm Based LCL Resonant Converter in Marine Applications" *Indian Journal of Geo-Marine Science, NISCAIR-CSIR, India.*
25. N Balamurugan and **Selvaperumal, S.** " Assessment Of Anti-Windup Pi Controlled Induction Motor Drive Using V/F Method." *Int J Adv Engg Tech/Vol. VII/Issue I/Jan. - March, 2016*: 964-968.
26. K.Pounraj and **Selvaperumal, S.** " Design Of Artificial Neural Network Based Control Scheme For The Management Of The Unified Power Flow Controller In A Single Machine Infinite Bus Bar System." *Int J Adv Engg Tech/Vol. VII/Issue I/Jan. - March, 2016*: 593-596.
27. SP Rajaram, **S Selvaperumal**. " Evaluation of Steady State Voltage Stability Margin of a Power System Using Search Group Algorithm." *Journal of Computational and Theoretical Nanoscience* 13.11 (2016): 8326-8332.
28. Balamurugan, N., and **S. Selvaperumal**. "Assessment of Energy Efficient Control of Three-Phase Induction Motor." 2015
29. Veenalakshmi, S., P. Nedumal Pugazhenth, and **S. Selvaperumal**. "Modeling and PID Control of Single Switch Bridgeless SEPIC PFC Converter." *Applied Mechanics and Materials*. Vol. 573. Trans Tech Publications, 2014.
30. Prabhakar, G., P. Nedumal Pugazhenth, and **S. Selvaperumal**. "Implementation Analysis of State Space Modelling and Control of Nonlinear Process using PID

- algorithm in MATLAB and PROTEUS Environment." *Applied Mechanics and Materials*. Vol. 573. Trans Tech Publications, **2014**.
31. Vijayarajan, Singaraj, N. Kamaraj, and **S. Selvaperumal**. "Day and Night Utilization of Solar PV System Integrated with Stand alone Wind generator for real and reactive power management in Three phase Unbalanced Load." *Applied Mechanics and Materials*. Vol. 573. Trans Tech Publications, **2014**.
 32. Poun Raj, K., Raja Sekaren, V., **Selvaperumal, S.**, & Mageswari, N. (**2014**). Performance Investigation of DQ Model for PI and Fuzzy Controller Based UPFC. In *Applied Mechanics and Materials* (Vol. 573, pp. 310-316). Trans Tech Publications.
 33. Ramasubramanian, B., and **S. Selvaperumal**. "An Efficient MATLAB App. for the grading of Diabetic Retinopathy Using Color Fundus Images." **2014**
 34. K.Pounraj and **Selvaperumal, S.** " Dynamic Performance Investigation of DQ Model Based UPFC with Various Controlling Techniques." *International Journal of Applied Engineering Research*, **2014**, 9.21: 10651-10670.
 35. Sainath, K. V., G. Prabhakar, and **S. Selvaperumal**. "An Integrated Design of Current Conveyor II based Analog PID Controller and Analyze the Control by using PID tuning rule." *Applied Mechanics & Materials* 573 (**2014**).
 36. **Selvaperumal, S.**, and C. Rajan. "Investigation of fuzzy control based LCL resonant converter in RTOS environment." *Journal of Intelligent & Fuzzy Systems* 26.2 (**2014**): 913-924
 37. Kavitha, I., **Selvaperumal, S.**, Pugazhenth, P. N., Rajithkhan, A. M., & Jagatheesan, R. (**2014**). Performance Investigation of PI Controller based Chopper fed DC Drive. *Applied Mechanics & Materials*, (573).
 38. Ramasubramanian, B., and **S. Selvaperumal**. "A Novel Efficient Approach for the Screening of New Abnormal Blood Vessels in Color Fundus Images." *Applied Mechanics and Materials*. Vol. 573. Trans Tech Publications, **2014**.
 39. Kasinathan, Pounraj, Rajasekaran Vairamani, and **Selvaperumal Sundramoorthy**. "Dynamic performance investigation of d-q model with PID controller-based unified power-flow controller." *IET Power Electronics* 6.5 (**2013**): 843-850.
 40. **Selvaperumal, S.**, C. Christober Asir Rajan, and S. Muralidharan. "Stability and performance investigation of a fuzzy-controlled LCL resonant converter in an RTOS environment." *IEEE Transactions on Power Electronics* 28.4 (**2013**): 1817-1832.
 41. K Pounraj, V Rajasekaran, **S Selvaperumal** "NEURO-FUZZY, A. D. A. P. T. I. V. E." "International Journal of Electrical Engineering & Technology (IJEET)." *Journal Impact Factor* 4.4 (**2013**): 74-92.
 42. **Selvaperumal, S.**, and C. Christober Asir Rajan. "Investigation of closed-loop performance for an LCL resonant converter in a real-time operating system environment." *IET Power Electronics* 5.5 (**2012**): 511-523.

Book Publications:

43. **Selvaperumal, S.**, Editor in *Applied Mechanics and Materials Journal* (ISSN: 1660-9336, Indexed in Anna University Annexure-II), Volume 573, under the titled "Advancements in Automation and Control Technologies", June **2014**, Trans Tech Publications Ltd, Switzerland (ISBN: 978-3-03835-124-5).
44. **Selvaperumal, S.**, "Electrical Engineering and Instrumentation", May **2014**, Anuradha Publications, Chennai (ISBN: 978-81-8472-259-8).
45. **Selvaperumal, S.**, "Embedded Systems", October **2015**, Anuradha Publications, Chennai (ISBN: 978-81-8472-292-5).

46. **Selvaperumal,S.**, “Power Electronics”, November **2015**, Shanlax publications, Madurai (ISBN: 978-93-85399-72-5).
47. **Selvaperumal,S.**, “DQ Model Based UPFC with Various Controllers” November **2016**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-3-330-00768-0).
48. S.Muralidharan., **Selvaperumal,S.**, and S.Sundara Magalingam “HVDC Transmission Systems”, December **2016**, Anuradha Publications, Chennai (ISBN:978-81-87721-20-8).
49. **Selvaperumal,S.**, “Stability and Performance Investigation of DC-DC Resonant Converter”, August **2016**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-3-659-93187-1).
50. **Selvaperumal,S.**, “Electronic Devices” January **2016**, Shanlax publications, Madurai (ISBN: 978-93-85399-96-1).
51. **Selvaperumal,S.**, “Mechatronics”, July **2016**, Anuradha Publications, Chennai (ISBN: 978-81-87721-10-9).
52. **Selvaperumal,S.**, and V.Gomathy “Detection & Isolation of Faults in Electrical System with Optimization” July **2017**, LAP LAMBERT Academic Publishing, Germany (ISBN:978-3-330-35270-4).
53. **Sundaramoorthy Selvaperumal.**,”Professional Ethics in Engineering”, **2018**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-2-06324-1).
54. **Sundaramoorthy Selvaperumal.**,”Advancements in Engineering and Technology”, **2018**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-613-9-96187-0).
55. **Sundaramoorthy Selvaperumal.**,”Computation of Steady State Voltage Stability Margin of A Power System”, **2018**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-613-9-92328-1).
56. **Sundaramoorthy Selvaperumal.**,”Principles of Management”, **2019**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-613-9-45860-8).
57. **Sundaramoorthy Selvaperumal.**,”Cascaded H-bridge Inverter Control for Grid Connected DC Power Source”, **2019**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-50273-5).
58. **Sundaramoorthy Selvaperumal.**,”Advancement in the Detection of Diabetic Retinopathy”, **2019**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-50391-6).
59. **Sundaramoorthy Selvaperumal.**,”Principles of Sensors and Transducers”, **2019**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-48552-6).
60. **Sundaramoorthy Selvaperumal.**,” **Modelling and Analysis of Induction Motor Drives**”, **2019**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-00016-3).
61. **Sundaramoorthy Selvaperumal.**,” **Analysis of Inverters**”, **2019**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-09471-1).
62. Nagarajan R Dhanasekaran R **Selvaperumal S.**,” **Performance analysis of wireless industrial automation system**”, **2020**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-53222-0).
63. **Sundaramoorthy Selvaperumal** “**Cascaded H-bridge Inverter Control for Grid Connected DC Power Source**”, **2020**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-50273-5).
64. **Sundaramoorthy Selvaperumal** “**Advancement in the Detection of Diabetic Retinopathy**”, **2020**, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-50391-6).

65. **Sundaramoorthy Selvaperumal** "Efficient Model for the Computation of Capacitance", 2020, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-0-56944-8).
66. **S.Selvaperumal** "Rudimentary Guidelines to Learn Management Principles", 2020, LAP LAMBERT Academic Publishing, Germany (ISBN: 978-620-2-67130-9).

Paper Published in International Conferences

67. Ramasubramanian, B., and **S. Selvaperumal**. "A stand-alone MATLAB application for the detection of Optic Disc and macula." *Advanced Communication Control and Computing Technologies (ICACCCT), 2016 International Conference on*. IEEE, **2016**.
68. S Muthuviswadarani, G Prabhakar, and **S. Selvaperumal**. " Analysis on soft sensor design in Simulink." *Advanced Communication Control and Computing Technologies (ICACCCT), 2016 International Conference on*. IEEE, **2016**.
69. PV Mani Maalini, G Prabhakar, and **S. Selvaperumal**. " Modelling and control of ball and beam system using PID controller." *Advanced Communication Control and Computing Technologies (ICACCCT), 2016 International Conference on*. IEEE, **2016**.
70. SP Rajaram and **S. Selvaperumal**. " Computation of maximum loadability limit of a power system using parallel mutation particle swarm optimization (PMPPO)." *Advanced Communication Control and Computing Technologies (ICACCCT), 2016 International Conference on*. IEEE, **2016**.
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| S No. | Title of the Paper | Name of Conference | Publication Details |
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| 72 | V. Hamsa Tharangini, G.Prabhakar, Dr. S. Selvaperumal , Dr. S. Nagalakshmi. Control of Nonholonomic Robots using Leader Follower Approach and PID Controller | International Conference On Recent Computing And Communication Technologies- ICRCCCT' 15 | Pp.1-5 Publication date 14 - 15, March 2015 |
| 73 | T. Dhivya Bharathi, G.Prabhakar, Dr. S. Selvaperumal , Dr. S. Nagalakshmi. Implementation Analysis of Modelling and Control of a Self Balancing Segway | International Conference On Recent Computing And Communication Technologies- ICRCCCT' 15 | Pp.21-25 Publication date 14 - 15, March 2015 |
| 74 | V Gomathy & Dr. S Selvaperumal IPSO Based Optimization for Fault Analysis in Power Transformer | Proceedings of 2016 International Conference on Innovations in information, Embedded and Communication Systems (ICIIECS) | pp. 1291-1297 |

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| 75 | Rajaram.S.P & Dr. S Selvaperumal <i>Computation of Maximum Loadability Limit of a Power System Using Parallel Mutation Particle Swarm Optimization (PMPSO)</i> | IEEE- 2016 International Conference on Advanced Communication Control and Computing Technologies (ICACCCT) | ISBN No.978-1-4673-9544-1 |
| 76 | Ramasubramanian.B & Dr. S Selvaperumal A Stand-alone MATLAB Application for the Detection of Optic Disc and Macula | IEEE- 2016 International Conference on Advanced Communication Control and Computing Technologies (ICACCCT) | ISBN No.978-1-4673-9544-1 |
| 77 | P.V. Mani Maalini, G.Prabhakar, S.Selvaperumal Modelling and Control of Ball and Beam System using PID Controller | IEEE- 2016 International Conference on Advanced Communication Control and Computing Technologies (ICACCCT) | ISBN No.978-1-4673-9544-1 PP: 374-378 |
| 78 | S. Muthuviswadarani, G.Prabhakar, S.Selvaperumal Analysis on Soft Sensor Design in Simulink | IEEE- 2016 International Conference on Advanced Communication Control and Computing Technologies (ICACCCT) | ISBN No.978-1-4673-9544-1 PP: 430-433 |
| 79 | S Selvaperumal, M.S. Sivagama Sundari Implementation of SHEPWM based cascaded H-Bridge Multilevel Inverter Using Newton Raphson Method | ASDF-2017 International Conference on Advanced Innovations in Engineering and Technology | ISBN No.978-8-193-32352-6 PP: 03 |
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| 82 | Dr. S. Selvaperumal Design of Autopilot to control the pitchrate of a aircraft. | International Conference on Emerging Trends in Engineering and Technology (ICETET'19) | March, 2019. |