

# FACULTY PROFILE

**Name of Teaching Staff / RMK ID** T0016

**Designation** Professor

**Department** Electrical and Electronics Engineering

**Date of Joining the Institution** 19-05-1997

**Qualifications** B.E. (EEE) M.E. (Mechatronics) PhD (Electrical Engineering)

**Total Experience** Overall : 30 in RMK : 27

**Papers Published in Journal** Overall : 64 After Joining RMK :64



## List of Papers Published

1. Padmanabhan.S, Sukhi Y, Y.Jeyashree, 'Analysis, Design and Development of Regulated Power Supply Using Soft Switched Resonant Converters', Journal of Applied Science, Vol.7, No. 23, 2007, ISSN:1812-5654.
2. Padmanabhan.S, SukhiY, Y.Jeyashree'Analysis, Design and Development of Variable Speed Drives Using Soft Switched Resonant Converters', International Journal of Applied Engineering Research, Research India Publications, Vol.3, No.4, 2008, pp. 585-597.
3. Padmanabhan.S, Sukhi Y,Y.Jeyashree'Mathematical Analysis and Computation of RPS Using Soft Switched Converters', International Journal of Computer, Mathematical Sciences and Applications, Serial Publications, Vol.2, No.1, March 2008, pp. 7-16.
4. Padmanabhan.S, Sukhi Y,Y.Jeyashree'Analysis, Simulation and Development of Resonant Converter for DC Motor Drive System', International Journal of Electrical and Power Engineering, Medwell Journals, Vol.2, No.2, 2008, pp. 64-70.
5. Padmanabhan.S, Sukhi Y,'Soft Switching Technique Using Resonant Converter for Constant Speed Drive', Journal on Intelligent Electronic Systems, Sathyabama University, Vol.2, No.1, July 2008, pp16-21.
6. Padmanabhan.S, Sukhi Y,Y.Jeyashree, "Quasi square wave mode phase shifted PWM LCC resonant converter for regulated power supply" International Journal of Engineering, Vol. No1, No.3, Nov2009 pp. 201-210.
7. Padmanabhan.S, Sukhi Y,Y.Jeyashree, "Identification of steady state operational modes of series-parallel resonant DC-DC converter based on coupled transformer in resonance operation" International Journal on Electrical and Electronics Engineering, Vol.No2, No.2,Jan 2009.

8. Sukhi Y,Y.Jeyashree, "DC-DC Soft switched resonant converter for regulated power supply", Indian Journal of Engineering, Science and Technology, Vol. No. 4, No.2, July-Dec 2010, pp: 17-28.
9. Sukhi Y,Y.Jeyashree, "Analysis and implementation of series –parallel resonant converter for regulated power supply", Journal of The institution of engineers (India), Vol.No 90, Mar 2010.pp: 18-22.
10. Sukhi Y,Y.Jeyashree"PWM based resonant converter with improved input power factor for powersupply units," Electrical Engineering Vol42 Jan 2012 pp6313-6319.
11. Sukhi Y,Y.Jeyashree"A Novel Cost Effective Circuit using Resonant Converter for HighPower Factor Correction Scheme" European Journal of Scientific Research Volume 91 No 1 December, 2012pp 145-158
12. Y.Sukhi ,S.Anita, Y.Jeyashree , A Novel Single Phase Five Level Inverter Topology for Renewable Energy Sources, International Journal of Applied Engineering Research, Volume 9, Number 24, 2014.
13. Y.Jeyashree, Y.Sukhi : LCC resonant converter with power factor correction for power supply units, Journal of the Chinese Institute of Engineers, Volume 38, Issue 7, October 2015, pages 843-854, 2015, <https://doi.org/10.1080/02533839.2015.1037995>
14. Y. Sukhi, S. Kirthiga and N. Sujitha: Implementation and Analysis of Low Stress PWM DC-DC Converter for Battery Charger, Indian Journal of Science and Technology, Vol 8(28), pages 1-6, October 2015, DOI: 10.17485/ijst/2015/v8i28/71686.
15. Jeyashree Yesuraj, Vimala Juliet Ashokan, SukhiYesuraj and Rebecca Shirly Harrison Christley: Simulation and Optimization of Perovskite Type Micro Thermoelectric Generator, American Journal of Applied Sciences, Vol 13(11), pages 1277-1289, Nov 2016.
16. GeethaRamadas, Manoj Kumar Nadesan, Sukhi Yesuraj and JeyashreeYesuraj: High power factor electronic ballast using resonant converter for compact fluorescent lamp, International Journal of Circuit Theory and Applications, Vol 45, pages 95-109, 2017, <https://doi.org/10.1002/cta.2231>.
17. Sukhi Yesuraj, Jeyashree Yesuraj, Perarasi Muthaiah& Sarojini Balaraman : Standalone PV-fed LED Street Lighting Using Resonant Converter, Electric Power Components and Systems, Vol. 45, issue 5, Feb 2017.pp. 548-559. <https://doi.org/10.1080/15325008.2016.1271063>
18. Sukhi Yesuraj, Geetha Ramadas, JeyashreeYesuraj, High-Power-Factor Single-Switch AC to DC Converter for LED Lighting, IEEJ Transactions On Electrical And Electronic Engineering,, Vol. 12, issue 6, pages925-935, 2017, <https://doi.org/10.1002/tee.22484>.
19. Y. Jeyashree, P.BlessyHepsiba, S.Indirani, A.DominicSavio,

- Y.Sukhi, Solar Energy Harvesting using Hybrid Photovoltaic and Thermoelectric Generating System, Global Journal of Pure and Applied Mathematics, Volume 13, Number 9, pp. 5935-5944, 2017.
20. Deepika Shree S, Divya S, Gayathri M, Y.Sukhi, Well Maintained Water Supply System, International Journal of Innovative Research Explorer, Volume 5, Issue 3, pp. 125-131, 2018. DOI:16.10089.IJIRE.2018.V3I7.17.21178
  21. S Anita, C Chellamuthu, Y Sukhi, Simplified Design of Permanent Magnet Synchronous Generator for Gas Turbine Application, Journal of Electrical Engineering : Volume 18, ISSN 1582-4594, 2018.
  22. Chintala Venkatesh and Y. Sukhi, A Novel Multi Input Three-Level DC-DC Boost Converter, International Journals of Advanced Research in Computer Science and Software Engineering, ISSN: 2277-128X, Volume-8, Issue-4, pp. 1-16, April 2018.
  23. A. Jenifer, Y. Sukhi, V. Karthika, A. FayazAhamed, Design Specifications and Performance analysis of Single and Two Stage HB LLC Converters, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9, November 2019
  24. Geetha Ramadas, Sukhi Y, Vision Controlled Robotic System, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9, November 2019
  25. Y. Jeyashree, Y. Sukhi, A. Vimala Juliet, S. LourduJame, S. Indirani, Concentrated solar thermal energy harvesting using Bi<sub>2</sub>Te<sub>3</sub> based thermoelectric generator, Materials Science in Semiconductor Processing, Vol. No.107, 1 March 2020, pp.104782  
<https://doi.org/10.1016/j.mssp.2019.104782>.
  26. S. Anita, Y. Sukhi, M. S. Kavitha, G. Lokesh, Transformer less Hybrid Bridge Inverter for Photovoltaic Grid Connected Systems, TEST Engineering & Management, ISSN: 0193-4120, Vol.82, Page No. 14890 – 14893, 2020.
  27. Geetha Ramadas, Y Sukhi, J Alex, N V Srikanth, Road Curve Vehicle Accident Prevention System, TEST Engineering & Management, ISSN: 0193-4120, Vol.82, Page No. 14927 - 14931, 2020.
  28. R. Pavithra, Y. Sukhi, AI based Voltage Control in Distribution System, TEST Engineering & Management, ISSN: 0193-4120, Vol.82, Page No. 14845 - 14849, 2020
  29. S.Anita, Y Sukhi, Y Jeyashree, Sahaya Ponrekha A, Design of High Power Factor Electronic Ballast, Solid State Technology, ISSN: 0038-111X, Volume: 63 Issue: 6, 2020.
  30. K.A. Mohamed Junaid, Y Sukhi, Y Jeyashree, Half Bridge Resonant Converter for Electronic Ballast, ISSN: 0038-111X, Solid State Technology, Volume: 63 Issue: 6, 2020.
  31. Jenifer.A, Y Sukhi, Battery Charger for Electric Vehicle using AC-DC Converter, Solid State Technology, ISSN: 0038-111X

,Volume: 63 Issue: 6, 2020.

32. A.Fayaz Ahamed, S.Anita, Y.Sukhi, Automation Of 400 KV Swichyard Using Networked Distributed I/O PLC, Solid State Technology, ISSN: 0038-111X ,Volume: 63 Issue: 6, 2020.
33. Anil Kumar N, Y Sukhi, Joseph Sathiadhas Esra A, Chintala Venkatesh, S.Hema, Quality of Security Improvement in WSNs by Integrating Ant Colony Optimization, Solid State Technology,Volume: 63 Issue: 6, 2020.
34. E.Elakkia, B.Nandhini, S.Anita, Y.Sukhi, Holistic Learning Aided WITH Digital Platform for Outcome based Engineering Education, PalArch's Journal of Archaeology of Egypt/Egyptology, Vol 17(9), 1567-214X , December 2020
35. Anita S, Fayaz Ahamed A, Y.Sukhi, E.Elakkia, National Educational policy 2020- The Inevitable Change, PalArch's Journal of Archaeology of Egypt/Egyptology, Vol 17(9), 1567-214X , December 2020
36. Anita S, Elakkia E, Y.Sukhi, B.Nandhini , Smart Residential Electric Vehicle Charging Station With Energy Management Strategy, Solid State Technology, ISSN: 0038-111X, Volume: 63 Issue: 6, 2020.
37. Amrish. P, Akash. M, Akash. M, Y. Sukhi, T. Jabamani, "Fingerprint and RFID Based Electronic Voting System", International Journal of Engineering Science and Computing", Volume 10 Issue No.8, pp.: 27197-27200, August 2020.
38. Y Sukhi , Ch Bhavana, M Keerthi, 1H Swetha, T Anusha, J.Alex, Web Based Smart Mailbox System, Turkish Online Journal of Qualitative Inquiry, Volume 12(5), May 2021, ISSN:1309-6591, pp 2169-2180.
39. Jenifer.A, Y.Sukhi, S.Anita, A.Fayaz Ahamed, Progression of Maximum Power Point Tracking for Photovoltaic, Volume 12(5), May 2021, ISSN:1309-6591, pp: 2221-2231.
40. A Jenifer, Y Sukhi, B P Nivethitha, Jagadeeswari, and S Pavithra, Dual-input DC/DC Converter for Solar Energy Harvesting Applications, IOP Publishing, Journal of Physics: Conference Series, ICACSE 2020, 2021, doi:10.1088/1742-6596/1964/5/052009
41. Y. Sukhi ; S. Abishek ; R. Ajaykumar ; R. Bharath ; M.M. Chandrasekar, Water Tank Electricity Generator, Geintec Gestao Magazine Innovation and Technilogies, Vol. 11 No. 4, 2021, ISSN:2237-0722, PP: 3316- 3335.
42. Y. Sukhi ; Y. Jeyashree ; A. Jenifer ; S. Anita ; A. Fayaz Ahamed, Bidirectional DC-DC Converter Using Zero Voltage Switching, Geintec Gestao Magazine Innovation and Technilogies, Vol. 11 No. 4, 2021, ISSN:2237-0722, PP.: 3336- 3351.
43. Y. Sukhi, Y. Jeyashree, and S. Anita, Design and Implementation of Single Stage Resonant Inverter for Electronic Ballast, Lecture notes in Electrical Engineering, Vol 748,pp. 179-191, doi: 10.1007%2F978-981-16-0275-7\_15.

44. Y. Jeyashree, Y. Sukhi, and A. Sahaya Ponrekha, DC-DC Converter for Energy Efficient DC Drive System, Lecture notes in Electrical Engineering, Vol 748, pp. 513-528, doi: 10.1007/978-981-16-0275-7\_42
45. K.A. Mohamed Junaid, Y. Sukhi, Y. Jeyashree, A. Jenifer, A. Fayaz Ahamed. PV based electric vehicle battery charger using resonant converter, Renewable Energy Focus 42 (2022) 24–32.
46. Joseph Sathiadhas Esra and Y. Sukhi, Speech Separation Methodology for Hearing Aid, Computer Systems Science & Engineering, CSSE, 2023, vol.44, no.2, DOI: 10.32604/csse.2023.025969
47. Y Sukhi, Y Jeyashree, A Jenifer, S Anita, A Fayaz Ahamed, Electronic Ballast using Half Bridge Resonant Converter, ICE4CT2021 Journal of Physics: Conference Series 2312 (2022) 012077, IOP Publishing, doi:10.1088/1742-6596/2312/1/012077.
48. N. Hariharan, Y. Sukhi and N. Kalaiarasi, IC Pattern Based Power Factor Maximization Model for Improved Power Stabilization, Intelligent Automation & Soft Computing, IASC, 2023, vol.36, no.1, pp.401-413, DOI: 10.32604/iasc.2023.030768
49. Y Sukhi, Y Jeyashree, S Anita, A Jenifer, A Fayaz Ahamed, High Step Up Converter with Transformerless Inverter for Grid Integration, Indian Journal of Science And Technology, 2022;15(34):1655–1665: DOI: 10.17485/IJST/v15i34.1131.
50. Jenifer.A Dr.Y.Sukhi Anil Kumar N, Design metrics and Performance Exploration of Asymmetric HBLLC converter, Mathematical Statistician and Engineering Applications, ISSN: 2094-0343, Vol. 71 No. 4, pp. 5854-5861, (2022)
51. S. Hema and Y. Sukhi, Deep Learning-Based FOPID Controller for Cascaded DC-DC Converters, Computer Systems Science & Engineering, vol.46, no.2, 2023, DOI: 10.32604/csse.2023.036577
52. K. A. Mohamed Junaid, Y. Sukhi and S. Anita, Low-Cost Smart Irrigation for Agricultural Land Using IoT, 2023, <https://doi.org/10.1080/03772063.2023.2178535>
53. Y. Sukhi, Y. Jeyashree, A. Jenifer, A. F. Ahamed and E. Aahimoolam, "Battery Charger using Bi-Directional DC-DC Converter," 2022 3rd International Conference on Smart Electronics and Communication (ICOSEC), Trichy, India, 2022, pp. 312-320, doi: 10.1109/ICOSEC54921.2022.9952149.
54. S. Anita, E. Elakkia, Y. Sukhi, A. F. Ahamed and V. Saicharan, "Dual Axis Solar Tracking Based Standalone PV System," 2022 Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT), Mandya, India, 2022, pp. 1-5, doi: 10.1109/ICERECT56837.2022.10060249.
55. A. F. Ahamed, Y. Sukhi, K. S. Lasya, P. Karishma and M. Priyanka, "Unity Power Factor Operation for Non Linear

Load Applications Using Interleaved Manitoba Rectifier," 2022 International Interdisciplinary Humanitarian Conference for Sustainability (IIHC), Bengaluru, India, 2022, pp. 1358-1362, doi: 10.1109/IIHC55949.2022.10060791.

56. Jenifer Arockia Raj & Sukhi Yesuraj (2023) Design and Development of SECU Converter Cascaded Control for EV Applications, *Electric Power Components and Systems*, 51:17, 1978-1991, DOI: 10.1080/15325008.2023.2217178.
57. K A Mohamed Junaid, Y Sukhi, N Anjum, Y Jeyashree, A Fayaz Ahamed, S Debbarma, G. Chaudhary, S. Priyadarshini, N Shylashree, S Garg, M Kumar, V Nath, PV-based DC-DC buck-boost converter for LED driver, *e-Prime - Advances in Electrical Engineering, Electronics and Energy*, Volume 5, 2023, 100271, ISSN 2772-6711, <https://doi.org/10.1016/j.prime.2023.100271>.
58. A. Fayaz Ahamed and Y. Sukhi, Modeling of Hybrid Henry Gas Solubility Optimization Algorithm with Deep Learning-Based LED Driver System, *Journal of Circuits, Systems and Computers*, 2023, <https://doi.org/10.1142/S0218126623503012>.
59. A. Joseph Sathiadhas Esra, Dr. Y. Sukhi, Optimized Binaural Enhancement via attention masking network-based speech separation framework in digital hearing aids, *Computer Speech & Language*, 2023, <https://doi.org/10.1016/j.csl.2023.101554>.
60. N. Anil Kumar, Y. Sukhi, M. Preetha and K. Sivakumar, Ant Colony Optimization with Levy-Based Unequal Clustering and Routing (ACO-UCR) Technique for Wireless Sensor Networks *Journal of Circuits, Systems and Computers*, 2023, <https://doi.org/10.1142/S0218126624500439>.
61. T. Snehitha Reddy, K.A. Mohamed Junaid, Y. Sukhi, Y. Jeyashree, P. Kavitha, Vijay Nath, Analysis and design of wind energy conversion with storage system, *e-Prime - Advances in Electrical Engineering, Electronics and Energy*, Vol. 5, 2023, 100206, <https://doi.org/10.1016/j.prime.2023.100206>.
62. Narayanasamy, M., Sukhi, Y. Rotor short-circuited start-up strategy for a doubly fed induction machine-fed large-rated variable-speed pumped storage unit operating in pumping mode. *J. Power Electron.* 23, 1733–1744 (2023). <https://doi.org/10.1007/s43236-023-00662-8>.
63. Malathy, N., Sukhi, Y. Improved start-up strategy for a doubly fed induction machine fed large rated variable speed pumped storage unit in pumping mode operation. *Electr Eng* (2023). <https://doi.org/10.1007/s00202-023-02007-x>.
64. S. Hema, Y. Sukhi and R. Suguna, "Flop Resistance Controlled Circulating Current Minimization of Parallel Quadratic Step-Up Converter in DC Micro grid Applications," 2023 International Conference on Computer, Electrical & Communication Engineering (ICCECE), Kolkata, India, 2023, pp. 1-7, doi: 10.1109/ICCECE51049.2023.10085233.

**Papers Presented in Conferences**

(Scopus / WoS indexed only)

**Ph.Ds / Projects Guided**

**Books Published :**

Overall : 43

After Joining RMK : 43

Ph.Ds Guided : 1

Student Projects Guided : 29

Count : 5

List :

1. Design of Solar Thermo-electric Generator, LAMBERT Academic Publishing, ISBN: 978-620-4-18239-1, 2021
2. Introduction to Sensors and Transducers, Xpress Publications, ISBN: 979-888-7-33994-8,2022.
3. Introduction to Electrical Engineering, Scientific International Publishing House, ISBN: 978-93-5625-478-7. 2022.
4. Microprocessors and Microcontrollers, Scientific International Publishing House, ISBN: 978-93-5757-004-6, 2023.
5. Electric Circuit Analysis, Alpha International Publication, ISBN: 978-93-95405-78-2, 2023.

**Patents**

Published Count : 4

Granted Count : 1

List :

1. Home Automation And Accident Prevention With Cloud Control System, Application number: 201741025254, patent number :364374, 2021.
2. Automatic Water Pouring In Grinder Using Relay Control, Application number: 201741025265, Published in 2019
3. Web Based Smart Mailbox System, Application number: 202241014947, Published in 2022.
4. Smart Assistive System For Paralyzed People Using Intelligent Wheelchair, Application number : 202241014946, Published in 2022.
5. LED Driver having Long lifespan, Application number: 202041044203, Published in 2022.
6. Solar Powered Automatic UVC LED Sterilizer Lamp, Application number: 202341009608, Published in 2023.

**Professional Memberships**

Count : 8

List :

1. IETE-F-502836
2. IEI-F1225725
3. ISTE-LM 66461
4. IEEE-942192100
5. ISSE-LM6588
6. ISET-2021120026
7. IGEN-1871
8. NITTSD-13998

**Consultancy Projects Completed**

Count : 13

**Awards Received**

Count : 16

List :

1. IE(I) BEST FACULTY ADVISOR AWARD from Institution of Engineers in the year 2015 from Hosur Local Centre.
2. Dr. APJ ABDUL KALAM Award for Teaching excellence for the year 2016.
3. BEST TEACHING FACULTY Award by Dr, Kalam Educational Trust for the year 2016.
4. BEST FACULTY Award from Institution of Engineers in the academic year 2016-17 from Maurai Local Centre.
5. BEST TEACHING FACULTY Award by Dr, Kalam Educational Trust for the year 2017.
6. BEST FACULTY Advisor Award from Institution of Engineers in the academic year 2017-18 from Hosur Local Centre.
7. ADARSH VIDYA SARASWATHI RASHTRIYA PURASKAR Award from Glacier Journal Research Foundation on 02/03/2018
8. Best Women Engineer Award from Institution of Engineers in the year 2018 from Tamilnadu State Centre on 11th March 2019.
9. International Innovative Researcher in Power Electronics from RULA AWARDS 2020
10. Innovative Researcher & Dedicated Professor Award from The Society of Innovative Educationalist & Scientific Research Professional, Chennai, for the year 2020-21
11. ISTE - Periyar Best Teacher Award – 2020 from Madurai Local Centre ISTE TN section in the Engineering Faculty virtual convention.
12. Academic Excellence Award 2023, from Institution of Engineers in the year 2023 from Hosur Local Centre.
13. Recognized as NPTEL Discipline Star in Electrical Engineering for the NPTEL online certification courses conducted during Jan-Apr 2023
14. Recognized as Motivated Learner for the NPTEL online certification courses conducted during Jan-Apr 2023
15. Recognized as NPTEL Believer for the NPTEL online certification courses conducted during Jan-Apr 2023
16. Recognized as Topper in the NPTEL online certification for the subject Transducers for Instrumentation conducted during July-Oct, 2023.

#### **Research grants Received**

1. Life Saving Gadgets, RDUG2017007, funded by The Institution of Engineers (India), Rs.40,000, November 2017- April 2018
2. Agro Automation, GEN12997, funded by UBA, MHRD, Rs.1,00,000, September 2019- Feb 2020
3. PV based Rechargeable LED UV Sterilizer Lamp, GEN19036, funded by UBA, MHRD, Rs.1,00,000 September 2020- January 2021



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<https://scholar.google.com/citations?user=r7Wr6GQAAAAJ>

**Vidwan Link / ID**

ID : 305200

<https://vidwan.inflibnet.ac.in/profile/305200>

**Research Gate Link / ID**

<https://www.researchgate.net/profile/Sukhi-Yesuraj>

**Scopus Link / ID**

ID : [23036996300](https://www.scopus.com/authid/detail.uri?authorId=23036996300)

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