




SRM Valliammai Engineering College

SRM Nagar, Kattankulathur-603203, Kancheepuram District, Tamil Nadu

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Department of Electronics and Instrumentation Engineering

Personal Details

Name :	Dr.K.Ayyar		
Designation :	Associate Professor		
Educational Qualification :	B.E., M.E., Ph.D.,		
Experience:	16 years 06 Months (as on 26.03.2021)		
Area of Specialization :	Power Electronics and Drives		
Date of Birth :	23/02/1982		
Date of Joining :	26/12/2014		
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Educational Details

S.No	Degree	Branch/Specialization	Institution / University	Year
1	B.E.	EEE	Ranipettai Engineering College / Madras University	2003
2	M.E.	Power Electronics and Drives	Government College of Engineering, Salem / Anna University	2007
3	Ph.D.	Power Electronics and Drives	Anna University Chennai	2013

Professional Society Memberships

1. Indian Society of Technical Education: Life Member
2. International Association of Engineers : Life Member
3. IEEE member - 90274950

Publication Details

Journals:

1. Prakash, R, **Ayyar, K**, "An enhanced whale optimized fractional order π^{λ} controller based power quality improvement for sensorless brushless dc motor under dynamic operating conditions", Journal of Intelligent & Fuzzy Systems, Vol. 42, No. 3, pp. 2647-2666, 02 February 2022. **(SCI Indexed; Impact Factor : 1.739)**
2. S. Padhmanabhaiyappan, R. Karthik and **K. Ayyar**, " Robust optimal utilization with a grid-connected microgrid using EFO-GBDT based controller technique with integrated converters", International Journal of Numerical Modelling Electronic networks, devices and fields, Wiley online library (First Published: 28 July 2020), Volume 34, Issue 1, January/February 2021. **(SCI Indexed; Impact Factor : 1.296)**
3. S. Padhmanabhaiyappan, R. Karthik and **K. Ayyar**, "Optimal utilization of interconnected RESs to microgrid: a hybrid AWO-ANFIS technique", Soft Computing, DOI 10.1007/s00500-019-04558-3, ISSN 1432-7643, Vol. 24, Issue 1, published online 29 November 2019. **(SCI Indexed; Impact Factor : 3.643)**.
4. **Ayyar, K**, Mohanapriyaa, N and Nirmalkumar, A, "Comparative study of Controller design for Inverter fed Indirect Vector controlled Induction Motor drive systems", Journal of Testing and Evaluation, Vol. 44, issue 3, pp.1119-1130, 2016,ISSN: 0090-3973. **(SCI Indexed; Impact Factor : 1.264)**

5. **Dr. K. Ayyar**, K. R. Vishal, T. Vignesh Yadhav, N. Prem and R. Nirmal Prasanth, "Smart Agriculture", International Journal of Modern trends in Engineering and Science, Vol. 5, No. 3, pp. 83-86, 2018.
6. **Dr. K. Ayyar**, S. Parthiban, M. Santhana Krishnan and R.Venkatesan, "Wearable human health monitoring system using human body communication based on redtacton technology", International Journal of Modern trends in Engineering and Science, Vol. 5, No. 3, pp. 90-92, 2018.
7. **Dr. K. Ayyar**, "NFC based Secure mobile health care system", International Journal of Engineering research and application, Vol. 8, No. 1, pp. 72-74, 2018.
8. Hariguru, T.M and **Ayyar, K**, "Design of Fuzzy Controller for Flow Control Applications", Middle-East Journal of Scientific Research, Vol. 24 (S2), pp. 197-203, 2016, ISSN: 1990-9233. **(Scopus Indexed)**
9. Hariguru, T.M and **Ayyar, K**, "Review on controller for flow control applications", Global Journal of Pure and Applied Mathematics (GJPAM), Vol. 12, No. 4, pp. 120-123, 2016, ISSN: 0973-1768. **(Scopus Indexed)**
10. Sindhu, S and **Ayyar, K.**, "Performance of Speed Control of Switched Reluctance Motor Drive Using Routh Approximation", International Journal of Applied Engineering Research (IJAER), Vol.10, No. 21 *Special Issues*, pp.19806-1981,2015, ISSN: 0973-4562. **(Scopus Indexed)**
11. Mohanapriya, N, **Ayyar, K** and Nirmalkumar, A., "Comparative study of Speed Controller design for Permanent Magnet Synchronous Motor drive systems", International Journal of Applied Engineering Research (IJAER), Vol.9, No. 22, pp. 5733-15749,2014, ISSN: 0973-4562. **(Scopus Indexed)**
12. Subhasri, S and **Ayyar, K.**, "Fuzzy based soft switching DC-DC converter with full ZVS range for Servo motor Drive", Transactions on Engineering and Sciences, ISSN: 2347-1875, Vol. 2, No. 1, January 2014.
13. Saranya, K and **Ayyar, K.**, "Analysis of ZVS active clamped current fed full bridge isolated DC/DC converter for servo motor drive", Transactions on Engineering and Sciences, ISSN: 2347-1875, Vol. 2, No. 1, Jan 2014.
14. **Ayyar, K** and Ann Mary Abraham, "High torque Low current system for Synchronous Motor", Transactions on Engineering and Sciences, ISSN: 2347-1875, Vol. 2, No. 1, Jan 2014.
15. **Ayyar, K**, Balamurugan, R and Prabha, S.U., "Model Order Reduction with Genetic Algorithm based Speed Control of Three Phase Induction Motor Drive", Archives of Sciences Journal, ISSN: 1661-464X, Vol. 65, No. 11, pp. 88-103, Nov 2012.
16. **Ayyar, K**, Ramesh, K and Gurusamy, G., "Design of Speed Controller for Permanent Magnet Synchronous Motor Drive Using Genetic Algorithm Based Lower Order system modeling" Journal of Computer Science, ISSN Print: 1549-3636, Vol. 8, No. 10, pp. 1700-1710, August 2012. **(Scopus Indexed)**
17. **Ayyar, K**, Gurusamy, R and Thanushkodi, K., "Design of Speed Controller for Speed Control of Converter Fed DC Motor Drive using Model Order Reduction Technique" European Journal of Scientific Research, ISSN: 1450-202X, Vol. 76, No. 2, pp. 288-299, May 2012. **(Scopus Indexed)**
18. Ramesh, K, **Ayyar, K**, Nirmalkumar, A and Gurusamy, R, "Design of Current Controller for Two Quadrant DC Motor Drive by Using Model Order Reduction Technique", International Journal of Computer Science and Information Security (IJCSIS), ISSN: 1947-5500, Vol. 7, No. 1, pp. 017-024, Jan 2010, USA.

Conferences:

1. Presented a paper titled Performance analysis of Speed Control of Sensorless BLDC Motor using Fractional-Order PID Controller in International Conference on Smart Automation in Computer, Electrical, Electronics and Communication Engineering held on 6th & 7th September 2019 at SRM Valliammai Engineering College, Chennai.
2. Presented a paper titled A review of Power quality monitoring system based on Fast-Convergent modulation integral observer in Power Electronics systems in International Conference on Smart Automation in Computer, Electrical, Electronics and Communication Engineering held on 6th & 7th

September 2019 at SRM Valliammai Engineering College, Chennai.

3. Presented a paper titled Performance of Speed Controller of Switched Reluctance Motor drive using Routh approximation in International Conference on Computing, communication and Electrical Technologies (ICCET-2015) held on 4th & 5th March 2015 at Vivekanandha Institute of Engineering and Technology for women, Tiruchengode, Namakkal district.
4. Presented a paper titled Design of Speed Controller for Switched Reluctance Motor using an Adaptive Neuro-Fuzzy Controller in MNRE sponsored National Conference on Recent Advancement in Renewable Energies and Applications (NCRREA) on 11th-12th September 2014 at Vivekanandha Institute of Engineering and Technology for Women, Tiruchengode, Namakkal.
5. Presented a paper titled Performance Comparison of Speed Controller of SRM drives using Symmetric Optimum Method and Z-N Method in MNRE sponsored National Conference on Recent Advancement in Renewable Energies and Applications (NCRREA) on 11th-12th September 2014 at Vivekanandha Institute of Engineering and Technology for Women, Tiruchengode, Namakkal.
6. Presented a paper titled Design and analysis of Fuzzy based full ZVS range soft switching DC-DC converter for Servo motor drive in Sixth National Conference on Recent Innovations in Science and Engineering (SURYARISE'14), Surya Engineering College, Erode, March 11, 2014.
7. Presented a paper titled ANN Based analysis of ZVS active-clamped current fed full bridge isolated DC-DC converter fed servo motor drive in International Conference on Computing, Communication and Electrical Technologies-2014 (ICCET-2014), Vivekanandha Institute of Engineering and Technology for Women, Tiruchengode, Namakkal, April 4 and 5, 2014.
8. Presented a paper titled Design of full ZVS range soft switching DC-DC converter for servo motor drive using Fuzzy controller in International Conference on Computing, Communication and Electrical Technologies-2014 (ICCET-2014), Vivekanandha Institute of Engineering and Technology for Women, Tiruchengode, Namakkal, April 4 and 5, 2014.
9. Presented a paper titled HTLC-The modified smart starter in International Conference on Computing, Communication and Electrical Technologies-2014 (ICCET-2014), Vivekanandha Institute of Engineering and Technology for Women, Tiruchengode, Namakkal, April 4 and 5, 2014.
10. Presented a paper titled Design and analysis of Fuzzy based full ZVS range soft switching DC-DC converter for Servo motor drive in Sixth National Conference on Recent Innovations in Science and Engineering (SURYARISE'14), Surya Engineering College, Erode, March 11, 2014.
11. Presented a paper titled Maximizing the sensor network lifetime using local wake-up scheduling in National Conference on Emerging trends in Electrical Science, Institute of Road and Transport Technology, Erode, February 27 and 28, 2013.
12. Presented a paper titled Controller Tuning for Current source Inverter fed Induction Motor Drive in Second National Conference on Applications of Emerging Technology in Electrical Sciences (NAETES 2010), Velalar College of Engineering and Technology, Erode, March 27, 2010.
13. Presented a paper titled Design of Implementation of Controller for DC motor Drive in Fifth National Conference on Intellectual Perspectives on Intelligent Control (IPIC-2010), Annai Mathammal Sheela Engineering College, Namakkal, March 25, 2010.
14. Presented a paper titled Current Controller Design of DC Motor Drive in Sixth National Conference on Modeling, Identification and control (NCMIC 2010), K.S.Rangasamy College of Technology, Tiruchengode, April 3, 2010.

Research and Development Details

1. No. of Ph.D. candidates guided/guiding : 05
2. No of Conferences Convened : 03
3. No. of Seminars Convened : 03
4. No. of FDP Convened : 08
5. No. of STTP Convened : 05
6. No. of Guest Lecture delivered : 05

Other Particulars

1. Grants received for STTP : Rs. 4,46,217/- from AICTE (2020)
2. Grants received for Conference : Rs.1,00,000/- from MNRE (2014)
3. Grants received for Seminar : Rs.40,000/- from ICMR (2014)
4. Grants received for FDTP : Rs. 30,000/- from Anna University (2019)
5. Grants received for FDTP : Rs. 25,000/- from Anna University (2014)
6. Grants received for FDTP : Rs. 30,000/- from Anna University (2013)

7. Research Supervisor Recognition details:

University	Ref.No.	Department	Area(s) of Specialization
ANNA UNIVERSITY, Chennai	2830017	Faculty of Electrical Engineering	Power Electronics and Drives, Control Systems, Power Systems, Process Control