

# SRM Valliammai Engineering College

(An Autonomous Institution)

SRM Nagar, Kattankulathur-603203, Chengalpattu District, Tamil Nadu TEL : 044 - 27454784 / 726, FAX : 044 - 27451504

# **Department of Electrical and Electronics Engineering**

	Personal Details		
Name :	Dr.R.Arivalahan		
Designation :	Associate Professor		
Educational Qualification :	M.E.,Ph.D		
Experience:	18 Years and 8 Months		- TOTAL
Area of Specialization :	Control Systems, Measurement and Instrumentation, Soft computing Technique		Ö
Date of Joining :	16-06-2014		T A
Email ID :	Arivalahanr.eee@valliammai.co.in		
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Educational Details					
S.No	Degree	Branch/Specialization	Institution / University	Year	
1	B.E.	Instrumentation and Control Engineering	Adhiyamaan Engineering College, University of Madras	April 1999	
2	M.E.	Process Control and Instrumentation	Annamalai University, Chidambaram	Nov 2002	
3	Ph.D.	Control Systems	Anna University, Chennai	April 2014	

## Professional Society Memberships

- 1.Indian Society of Technical Education: Life Member
- 2. International Association of Engineers(IAENG)

3. International Association of Computer Science and Information Technology(IACSIT)

4. The Indian Science Congress Association (ISCA)

## **Publication Details**

## Journals:

- 1. **R.Arivalahan**, S. Hosimin Thilagar and D.Devaraj, "Investigation of Fuzzy Logic Controller for Conical tank Process", European Journal of Scientific Research, Vol.92, No.2, pp.191-202,2012.
- 2. **R.Arivalahan,** P.Subbaraj, and D.Devaraj "Development of Genetic Algorithm based Fuzzy Logic Controller for Conical tank Process", International Journal of Industrial Systems Engineering, Vol.13, No.4, pp.442-461,2013.
- 3. R.Girija, **R.Arivalahan**, "Power Management and Decentralized Control of Interlinking Converter by Interfacing AC and DC Micro grids", International Journal of Innovative research in Electrical, Electronics, Instrumentation and Control Engineering, Vol.3, No.6, pp.136-146,2014.
- 4. B.S.Suganya, **R.Arivalahan**, "Power Management of Hybrid Renewable System Integrated with Energy Storage System", International Journal of Innovative research in Electrical, Electronics, Instrumentation and Control Engineering, Vol.3, No.2, pp.123-128,2015.
- 5. **R.Arivalahan**, T.Vinoth & P.Tamil arasan," Development of Neural Network Based Predictive Controller for Conical Tank Process" International Journal of Applied Engineering, Volume No.10, Issue No.6,2015.
- B.S.Suganya, R.Arivalahan, "Power Management of Hybrid Renewable System Integrated with Energy Storage System", International Journal of Innovative research in Electrical, Electronics, Instrumentation and Control Engineering, Vol.3, No.2, pp.123-128,2015.

- 7. R. Bharathi , **R.Arivalahan** "Implementation Of Multilevel Inverter Based DVR Using Annealing Search Algorithm", International Journal of Emerging Technology in Computer Science and Electronics (IJETCSE),Vol.22, Issue No.2,pp.122-127, May 2016.
- 8. G.Shobana and **R.Arivalahan**," Modified PSO Based SAPF Control Strategy for Harmonic Elimination and Power Factor Correction in Distribution System" International Journal for Research in Applied Science and Engineering and Technology(IJRASET), Vol.4, Issue No.2, pp.595-603, May 2016.
- 9. **R.Arivalahan**," Design and Implementation for Nonlinear Conical Tank Level Process" Asian Journal of Information Technology(AJIT), Vol.15, Issue No.13, pp.2282-2295, September 2016.
- 10. **R.Arivalahan**,"Neutralization of Non-Linear PH Process with Intelligent Controller Technique" Journal of Computational and Theoretical Nano Science" Vol.14, pp.1068-1074, 2017.
- 11. **R.Arivalahan**, S.Balaji and P.Tamil Arasan" Development and Stability Analysis of Neuro tuned PI Controller for Non-Linear Conical Tank Level Process" International Journal of Electronics, Electrical and Computational System, Vol.6,Issue 10, pp.271-279, October 2017.
- 12. **R.Arivalahan**," Capacitance Probe Type Sensor for Process Tank Level Measurement and Control Through Programmable Logic Controller", Taga Journal of Graphical Technology, Vol. No.14, March 2018, pp.2570-2584.
- 13. **R.Arivalahan**," Fibre Optic Sensor for Temperature Measurement and Control Through Programmable Logic Controller for Electric Furnace", Taga Journal of Graphical Technology, Vol. No.14, March 2018 pp.2623-2640.
- 14. R.Arivalahan, Mr.S.Balaji, Mr.P.Tamil Arasan, "Investigation of Genetic Algorithm tuned PI Controller for the Non-Linear Conical Tank Level Process" i-manager's Journal of Instrumentation and Control Engineering, Vol. No.7, Issue No.2, February-April,2020,pp.1-7.
- 15. M. Abinaya, C.V.Chaaru Nisha,K.Adithyan,V. Dhinakaran,**R.Arivalahan**, "Implementation of Low Harmonics Multilevel Inverter using SPWM" International Research Journal of Engineering and Technology, Vol. No.7, Issue No.3, March 2020,pp.3318-3320.
- 16. S. Varsha, A.Sathish Kumar, S.Raghul, I.Pradeesh, **R.Arivalahan**, "Load Monitoring System for Diesel Generator using Internet of Things" International Journal of Scientific Research and Engineering Development, Vol.3, Issue No.2, March-April 2020, pp.139-141.
- 17. **Dr.R.Arivalahan**, S.Balaji, M.Kamalakannan, T.Vinoth, "Development Of Arduino Based Microcontroller Through Internet of Things (IOT) For The Measurement and Monitoring Of Process Environmental Parameters" International Journal of Electrical Engineering and Technology (IJEET), Vol.12,Issue 02, pp.50-61, February 2021.
- P.Geetha, S.Devanathan, AbinRoy, S.Praveen Kumar, R.Arivalahan "Design of Solar and Wind Hybrid Power Systems for Mobile charging and Lighting Systems" International Journal of Electrical Engineering and Technology (IJEET), Vol.12,Issue 03, pp.42-48, March 2021.

# **Conferences:**

- Arivalahan, R., S.Hosimin Thilagar and D.Devaraj, "Development of Genetic Algorithm tuned PI Controller for Conical tank Process", National IX Control Instrumentation System Conference, CISCON'12, 16th and 17<sup>th</sup> November, Manipal Institute of Technology, Manipal, 2012 pp.14-19.
- R.Arivalahan, S.Hosimin Thilagar, S. and Devaraj, D., "Development of Fuzzy Logic Controller for Conical tank Process", Proceedings of the Third National Conference on Intelligent Techniques in Control, Optimization and Signal Processing, INCOS'12, March 2nd and 3rd, 2012, Kalasalingam University, Srivilliputhur, pp. 225-231,2012.
- R.Arivalahan, S.Hosimin Thilagar and Devaraj, D., "Investigation of Neuro tuned PI Controller for Conical tank level Process", National Conference on Intelligent Control Systems and Automation Techniques, NCICSAT-13,Department of Instrumentation and Control Engineering, Sri Sairam Engineering College, Chennai, pp.34-39,2013.
- 4. R.Girija, R.Arivalahan, "Decentralized Power Control and Management of Interlinking Converter by Interfacing

AC and DC Microgrid", Second IEEE National Conference on Emerging Trends in New and Renewable Energy Sources and Energy Management", NCET NRES EM-2014, December 16th , 2014, Arupadai Veedu Institute of Technology, pp.368-373.

- 5. **R.Arivalahan**, Suganya.,B.S., "Power Regulation and Energy Management of Hybrid System Using ANFIS Based Control", Proceedings on National Conference on Recent Trends in Modern Electronics and its Applications, Jeppiar Institute of Technology,2015.
- 6. R.Arivalahan, S.Balaji and P.Tamil Arasan,"Development and Stability Analysis of Neuro tuned PI Controller for Non-Linear Conical Tank Level Process" Two Days National Conference on Science, Technology and Environment : Prospects and Limitation in the 21st Century(NCSTEPL-2017)" at Bineswar Brahma Engineering College (A Govt of Assam Institute), Chandrapara, Assam, India.
- R.Arivalahan, S.Balaji and P.Tamil Arasan," Modeling and Stability Analysis of Genetic Algorithm tuned PI Controller" Two Days International Conference on Contemporary Topics in Electrical and Electronics Engineering(ICCTEEE-2017)" at Karpagam College of Engineering, Coimbatore, India, 27th and 28th February 2018, pp.178-190.
- 8. **R.Arivalahan**, Mr.S.Balaji, Mr.P.Tamil Arasan, "Design and Implementation of the Genetic Algorithm tuned PI Controller for the Non-Linear Conical Tank Level Process" National Conference on Emerging Trends in Mathematical Sciences(NCETMS-2018), pp.53-64, 20th December 2018.
- R.Arivalahan, S.Balaji, P.Tamil Arasan,"Investigation of Genetic Algorithm tuned PI Controller for the Non-Linear Conical Tank Level Process" International Conference on Smart Automation in Computer, Electrical And Communication Engineering" (ICSA2K19) at Valliammai Engineering College, pp.53-64, 6th -7th September 2019,pp.183-186,2019.

## **Books:**

- 1. **R.Arivalahan** "Control Systems Engineering (Theory and Practical Solution) ", Vitasta Publications Pvt. Ltd., New Delhi, February 2009,ISBN: 978-81-897666-2-7.
- 2. **R.Arivalahan** "Digital Control Logics in Computer Control of Process", Aksya Publications Pvt. Ltd., Chennai, September 2010, ISBN : 978-81-910273-0-3.
- 3. **R.Arivalahan** "Process Control in Process Industries (Theory and Practical Solution) ", Aksya Publications Pvt. Ltd., Chennai, March 2011,ISBN : 978-81-910273-1-0.
- 4. Dr.R.Arivalahan, "Electrical Engineering and Instrumentation", Aksya Publications Pvt. Ltd., Chennai, August 2015, ISBN : 978-81-910273-4-1.
- 5. Dr.R.Arivalahan, "ControlSystems", Aksya Publications Pvt. Ltd., Chennai, September 2015, ISBN : 978-81-910273-4-1
- Dr.R.Arivalahan, "Analytical Instruments", Aksya Publications Pvt. Ltd., Chennai, August 2015, ISBN : 978-81-910273-3-4
- 7. Dr.R.Arivalahan, "Transducer Engineering", Sahara Publications, Chennai, December 2016, ISBN : 978-81-932306
- 8. **Dr.R.Arivalahan**,"Process Control", Sahara Publications, Chennai, January 2018, ISBN : 978-9386636713
- 9. Dr.K.Elango, **Dr.R.Arivalahan**, Mr.S.Balaji, Mr.P.TamilArasan, "Basic Electrical, Electronics and Instrumentation Engineering", March 2019,ISBN :978-81-910273-7-2.

## Research and Development Details

- 1. No. of Research Projects Completed : nil
- 2. No. of Patterns filed : nil
- 3. No. of Ph.D candidate guided/guiding :nil
- 4. Number of Books Written : 9

- 5. Number of Conference Conveyed :2
- 6. Number of Symposium Co Conveyed :2
- 7. Number of FDP/STTP Conveyed : 6
- 8. Number of FDP/STTP Coordinated :11
- 9. Number of U.G Projects Guided: 12 Batches and P.G Projects Guided : 4 Batches

## **Other Particulars**

## **Events Attended:**

- 1. Attended the One day Induction program held on 21<sup>st</sup> June 2014 at Valliammai Engineering College, Chennai.
- 2. Has Attended one day National Research Conference on Emerging Technologies in Engineering held at Valliammai Engineering College on 23.4.2016.
- Conducted 15 Days Value Added Course for Under Graduated Students in the topic on "MATLAB Applications on Control Systems", held at SRM Valliammai Engineering College in EEE Department from 22.07.2017 to 11.08.2017.
- 4. Attended the NPTEL Course done on the subjects : Body Language of Professional Success, Control Systems, Basic Electronics.
- 5. Has Attended One Day National Seminar on Emerging Technologies in Engineering(NSETE-17) at Valliammai Engineering College on 01.04.2017.
- 6. Has Attended One day National Seminar on Emerging Technologies In Engineering(NSETE'18) at Valliammai Engineering College on 07.04.2018.
- 7. **Board of Study member**-Autonomous system in SRM Valliammai Engineering College, Chennai, Tamilnadu for Academic Year 2019-2020.