Dr.R.Manikandan.,M.E.,Ph.D.,MISTE.,

Subramaniya nagar,
Mecheri (Po), Mettur (Tk),
Salem (Dt), 636 453.
Contact No: 9944270473.
Email: electricmani@yahoo.co.in

Objective

To get a challenging position of educator in which I can utilize my research knowledge and teaching experience with students and make their bright carrier.

Educational Qualifications

Course	Institute	Board / University	Year of Passing	CGPA / % of Marks
Ph.D (Electrical Engineering)	Full Time Research Scholar, SONAPEDAC R&D, Sona College of Technology, Salem.	Anna University, Chennai.	2017	-
M.E (Power Electronic and Drives)	Sona College of Technology, Salem.	Anna University	2010	9.01 CGPA
B.E (Electrical and Electronics Engineering)	Mahendra Engineering College, Namakkal Dt.	Anna University	2008	72.54%
DIPLOMA (Electrical and Electronics Engineering)	Muthayammal Polytechnic College, Rasipuram.	Department of Technical Education	2005	86.83%
H.S.C	Govt Hr.Sec. School, Mettur Dam.	State Board	2003	75.91%

Working Experience

Name of Institution	Date of Joined	Designation	Experience
Dhirajlal Gandhi College of Technology, Salem	06.06.2016 to Till date	Assistant Professor / Department of EEE	1 Year 02 Months (Till date)
Sona College of Technology, Salem	01.08.2014 to 31.05.2015	Research Associate / SONAPEDAC R&D, Department of EEE	1 Year 10 Months
The Kavery Engineering College. Mecheri, Salem (dt)	10.06.2010 to 27.06.2014	Assistant Professor / Department of EEE	4 Years

Research Areas

- Special electrical machines and sensor less controls
- AI Techniques for solid state drives
- dSPACE & FPGA Implementation
- Renewable Energy Resources & Applications

Registered Patent

1. R.Arulmozhiyal, R.Manikandan, and M.Murali, "Digital Optic Warp, Weft Stop Motion and Counter" for textile automation, Application Number: 6337/CHE/2015.

Published Books

1. R.Manikandan, R.Venkateswaran, and S.Sugumar, "Electrical Circuits Simulation Practical Lab Manual", L-Scheme, Polytechnic Colleges, Star Publications, First Edition 2013, Coimbatore-641 012.

2. R.Manikandan, and M.G.Anand, "Electrical Circuits Laboratory Manual", Second semester B.E/B.Tech students as per Anna University Regulation-2013, Sri Maruthi Publishers, Chennai-600 049.

3. R.Manikandan, and Dr.S.Rajendran, "Basic Electrical and Electronics Engineering", Second semester B.E/B.Tech students as per Anna University Regulation-2013.

Journal Publications

1. R.Manikandan, S.Rajendran, and R.Arulmozhiyal, 2017, "dSPACE Real Time Implementation of Fuzzy PID Position Controller for Vertical Rotating Single Link Arm Robot Using Four Quadrant BLDC Drive", Acta Scientiarum. Technology, vol.39, no.3, pp. 301-311, ISSN (Print): 1806-2563, ISSN (Online): 1807-8664 (**Anna University-Annexure I, SCI & Scopus Indexed**). IF – 0.527.

2. R.Manikandan, and R.Arulmozhiyal, 2016, "Intelligent Position Control of a Vertical Rotating Single Arm Robot Using BLDC Servo Drive", Journal of Power Electronics, vol. 16, no.1, pp. 205-216, ISSN (Print): 1598-2092, ISSN (Online): 2093-4718 (**Anna University-Annexure I, SCI & Scopus Indexed**). IF – 1.047.

3. R.Manikandan, R.Arulmozhiyal, "Modeling and Implementation of Quadrature Encoder for Servo Drive Applications" International Journal of Applied Engineering Research, (**Anna University-Annexure II**) ISSN 0973-4562, Volume 10, Issue 10, 2015, 9711-9717.

4. R.Manikandan, R.Arulmozhiyal, S.Sreejith "Implementation of Single Stage Multistring Inverter with Multi-Rated Photovoltaic Sources using Speedgoat Realtime Machine" International Journal of Applied Engineering Research (**Anna University-Annexure II**) ISSN 0973-4562 Volume 10, Issue 10, 2015. pp. 9858-9864.

5. R.Manikandan, R.Arulmozhiyal, M.Murali "Modeling and Simulation of Control Actuation System" ARPN Journal of Engineering and Applied Sciences ISSN: 1819-6608, Vol. 10, No.

4, March 2015, Asian Research Publishing Network (ARPN) (**Anna University-Annexure II**) pp.1778-1782.

6. R.Manikandan, R.Arulmozhiyal and A.Preethi, 2016, "Position Control of Single Link Robot Manipulator Using BLDC Motor", IMPACT: International Journal of Research in Engineering & Technology, vol. 04, no. 02, pp. 37-46, ISSN (Print): 2347-4599, ISSN (Online): 2321-8843.

7. R.Manikandan, K.R.Priyadharsini, and R.Arulmozhiyal "A Novel Fuzzy Logic Based Sensorless Speed Control of Position Sensorless BLDC Servo Drive", International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-2, Issue-6, January 2014. Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd. pp.51-58.

8. R.Manikandan, and M.Vijayakumar "An Efficient Bidirectional Sensorless Induction Motor Drive using Slip Estimation", International Journal of Engineering Research & Technology (IJERT – ISSN: 2278-0181), Vol.3 Issue 1, January-2014. DOI: IJERTV3IS10446. pp1136-1141.

9. R.Manikandan, Dr.R.Arulmozhiyal, and M.Sangeetha, "Sensorless Speed Control of FSTPI Fed Brushless DC Motor Drive Using Terminal Voltage Sensing Method", International Journal of Soft Computing and Engineering (IJSCE) ISSN: 2231-2307, Volume-4, Issue-1, March 2014, Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd. pp.101-106.

10. R.Manikandan, and G.Paranjothi "Photovoltaic Based Brushless DC Motor Closed Loop Drive for Electric Vehicle", International Journal of Emerging Trends in Electrical and Electronics (IJETEE – ISSN: 2320-9569), Vol. 9, Issue. 1, Nov-2013. pp.65-71.

Conference Proceedings

1. R.Monisha, S.Vigneswari@vidhya, Dr.R.Manikandan, and Dr.S.Rajendran, "Modeling and Analysis on Coupling of Electrical Machines" Proceedings of International Conference on Innovations in Power and Advanced Computing Technologies [i-PACT2017] held on 21st and 22nd April 2017 at VIT University, Vellore, India.

2. Dr.S.Rajendran, Dr.R.Manikandan, R.Monisha, and Vigneswari@Vidhya, "Sensorless Speed Control of PMDC Motor Using LabView" Proceedings of National Conference on Innovative Strategies in Green & Soft Computing for Renewable Energies (ISGSCRE'17) held on 31st March 2017at Sona College of Technology, Salem, India.

3. R.Manikandan, "Speed and Position Control of BLDC Motor Without any Shaft Mounting Sensors" Proceedings of National Conference on Advanced Technologies in Computing, Communication and Electrical Engineering (NCATCCEE'16) held on 30th September 2016 at The Kavery Engineering College, Salem, India.

4. R.Manikandan, and R.Arulmozhiyal, 'Modeling and Simulation of Fuzzy Based BLDC Fed Vertically Rotating One DOF Robot Arm Position Control System', Proceedings of International Conference on Intelligent Systems and Control (ISCO'16), pp. 6-14, 2016, IEEE Xplore Digital Library DOI: 978-1-4673-7806-2.

5. R.Manikandan, and R.Arulmozhiyal, 'Design of Equivalent Fuzzy PID Controller from the Conventional PID Controller', Proceedings of International Conference on Control, Instrumentation, Communication & Computational Technologies (ICCICCT'15), pp. 379-385, 2015, IEEE Xplore Digital Library DOI: 978-1-4673-9825-1.

6. R.Manikandan, R.Arulmozhiyal, "Modeling and Implementation of Quadrature Encoder for Servo Drive Applications" Proceedings of International Conference on Innovative Strategies in Renewable Energy and its Applications (ISREA-15) ISBN: 978-93-83910-05-2 held on 5th & 6th March 2015 at Sona College of Technology, Salem, India. pp. 343-349.

7. R.Manikandan, K.R.Priyadharsini, and M.G.Anand, "Speed Control of PWM Controlled Cycloconverter fed Capacitor Start and Run Induction Motor Drive", Proceedings of National Conference on Recent Trends in Renewable Energy Resources & Applications- RRERA'14 on 16th an 17th March 2014, The Kavery Engineering College, Mecheri, Salem(dt).

8. R.Manikandan, R.Arulmozhiyal, and K.R.Priyadharsin, " A Review of Various Back EMF Schemes for Sensorless Control of BLDC Motor Drive using PI Controller", Proceedings of 3rd International Conference on Competency Building Strategies in Business and Technology for Sustainable Development, held on 25th Feb 2014, Sri. Ganesh School of Business Management, Salem.

9. R.Manikandan, R.Arulmozhiyal, "Position Control of DC Servo Drive Using Fuzzy Logic Controller", Proceeding of 1st International Conference on Advances in Electrical Engineering (ICAEE'14), VIT University, Tamilnadu, India. January 9-11, 2014. Published on IEEE Xplore Digital Library, DOI: 10.1109/ICAEE.2014.6838474, pp 1-5.

10. R.Manikandan, R.Arulmozhiyal, and K.R.Priyadharsin, "Fuzzy PI Based Speed Sensorless Speed Control of Position Sensorless BLDC Drive", Proceeding of IET Chennai 4th International Conference on Sustainable Energy and Intelligent System (SEISCON 2013), K.C.G College of Technology, Chennai, Tamil Nadu, India. December 12-14, 2013. Published on IET Digital Library, DOI: 10.1049/ic.2013.0294, pp 57-64.

11. R.Manikandan, and K.R.Priyadharsini, "A Novel Fuzzy Logic Based Speed Control of BLDC Motor Drive without Any Shaft Mounting Devices", Proceedings of National Conference on Innovations in Special Electric Drives, Power and Energy. 7th & 8th October 2013, Muthayammal Engineering College, Tamil nadu. pp-10.

12. R.Manikandan, and Dr.R.Arulmozhiyal, "Recent Developments in Control Schemes of Sensor less BLDC Motor Drives", Proceedings of International Interdisciplinary Research Seminar on How to do Ph.D at International Standards, 3rd August 2013, Vol.1.pp-136.

13. R.Manikandan, and K.R.Priyadharsini, "Sinusoidal Buck Boost AC Voltage Controller", Proceedings of 1st National Conference on Recent Trends in Engineering and Technology (NCONET13) – 23 Feb 2013, Jansons Institute of Technology, Coimbatore.

14. R.Manikandan, R.Arulmozhiyal, and K.Baskaran, " A Fuzzy Based PI Speed Controller For Indirect Vector Controlled Induction Motor Drive", Proceedings of 2010 India International conference on power Electronics (IICPE 2010), New Delhi, DOI 978-1-4244-7882-8/11.

15. R.Manikandan, R.Arulmozhiyal, and K.Baskaran, " An Intelligent Speed Controller For Indirect Vector Controlled Induction Motor Drive", Proceedings of 2010 IEEE International

Conference on Computational Intelligence and Computing Research, DOI 978-1-4244-5966-7/10, pp 465-469.

16. R.Manikandan, R.Arulmozhiyal, and K.Baskaran, "SVM Based Vector Controlled Induction Motor Speed Control Drive Using Fuzzy PI Controller", Proceedings of International Conference on Advances in Energy Conversion Technologies (ICAECT'10), Manipal, pp. 404-408,2010.

Workshops & FDP Participation

1. Participated QIP sponsored short term course on "Real-Time Simulation for Power Electronics and Power Systems" at IISC Bangalore. 10-14 July 2017.

2. Participated Workshop on "Scope for R&D Projects and Proposal Preparation" by Center for Technology Development and Transfer, Anna University, Chennai. 12th May 2017.

3. Participated Anna University sponsored Faculty Development Training Program on "EE6601-Solid State Drives" at Knowledge Institute of Technology, Salem from 14th to 20th December 2016.

4. Participated QIP sponsored short term course on "Pulse Width Modulation Techniques for Voltage Source Inverter" at IISC Bangalore. 21-25 November, 2016.

5. Participated Seminar on "NI Day" Organized by National Instruments at Bangalore, 19th October 2016.

6. Participated Faculty Development Program on "Demystifying Electronics System Level Design and Engineering" by Competency in ICET, Pedagogy Solutions Engineering, at Dhirajlal Gandhi College of Technology. 16-18 June 2016.

7. Participated ISTE Sponsored One Week Short Term Training Program on "PLC Practices & Applications" at Sona College of Technology. 6-11 June 2016.

8. Participated Workshop on "How to Improve the Business Competitiveness through TQM & Plant Visit" by CII Salem, at JSW Steel Ltd., 11 June 2016.

9. Participated in national workshop "Energy Storage Techniques for Renewable Energy Systems", on 16th September 2015 organized by department of EEE, Sona College of Technology.

10. Participated in national workshop "FPGA based control of Permanent Magnet & Reluctance Motors for Energy Efficient Industrial Drives", on 6-8 August 2015 organized by department of EEE & RAE, PSG College of Technology.

11. Participated two days National Workshop on "Mathematical Methods for Engineering and scientific Applications" at Sona College of Technology, Salem on 19th & 20th December 2014.

12. Participated one day National Workshop on "FPGA Programmable SoC for Electrical Control Systems" at Sona College of Technology, Salem on 5th December 2014.

13. Participated 'dSPACE user conference 2014 India' conducted by DynaFusion Technology Pvt.Ltd at Bangalore on 12th September 2014.

14. Participated in the 'Engineering & Science Innovation Summit' conducted by National Instruments, India. June 2014.

15. Participated in Faculty Development Training Program on 'EE6302-Electromagnetic Theory' conducted by Center for Faculty Development, Anna University at Sona College of Technology from 17th to 23rd June 2014.

16. Participated two days workshop on "Advanced Power electronics and Motor Control Simulation Techniques" at Sri Ramakrishna Engineering College, Coimbatore on 21st & 22nd February 2014.

17. Participated one day International Research Workshop on "Preparation and Publication of Research Articles in International Journals" at The Kavery College of Engineering, Mecheri on 28th March 2013.

18. Participated two days National Workshop on "Smart Grid Technology for Sustainable Energy Systems" at Sona College of Technology, Salem on 15th & 16th February 2013.

19. Participated one day Faculty Development Program on "Emerging Trends in Electrical and Embedded Technologies" at Sona College of Technology, Salem on 21st December 2012.

20. Participated one day ISTE Tamilnadu and Pondicherrry seminar on "Emerging Paradigm in Technical Education" at Maharaja Engineering College, Tirupur on 15th December 2012.

21. Participated two days Faculty Development Program on "C2000 Digital Signal Controllers for Digital Power & Control Applications" at Thiagarajar College of Engineering, Madurai, on 9th & 10th August 2012.

22. Participated Two day National workshop on "Control System Design using LabVIEW", at K.L.N. College of Engineering, Madurai, on 3rd&4th April 2012.

23. Participated Faculty Development Programme on "Intelligent Control using MATLAB", at Kumaraguru College of Technology, Coimbatore, on 16th&17th Dec 11.

24. Participated three days workshop on "Creative Theory of Universitarian Teaching", at United Institute of Technology, Coimbatore, on 1-3 Jun 2011.

25. Participated Faculty Development Programme on "Advanced Controllers for Electric Drives", at Sona College of Technology, Salem, on 18th&19th Jan 2011.

26. Participated workshop on "MATHCAD", at knowledge Institute of Technology, Salem, on 23rd Dec 2010.

27. Participated one day workshop on "Keil Embedded Workshop on μc/ARM Technology" conducted by department of Electronic and Communication Engineering, Anna University Coimbatore, on 9th Oct 2009.

28. Participated in the two days familiarization program on Thermal Power Plant, conducted by NPTI (National Power Training Institute), at Mahendra Engineering College, on 24th&25th Feb 2006.

Courses and Gust Lectures Delivered

1. Conducted Three Days Value Added Course on "MATLAB/SIMULINK Programming and Simulation for Electrical Systems using Arduino", 03 to 05 July 2017 at Dhirajlal Gandhi College of Technology, Salem.

2. Conducted Two Days Value Added Course on "MATLAB/SIMULINK Programming and Simulation for Electrical Systems", 1st & 2nd July 2017 at Dhirajlal Gandhi College of Technology, Salem.

3. Conducted a One Week Value Added Course on "MATLAB/SIMULINK Programming and Simulation for Electrical Systems", 01 to 06 August 2016 at Dhirajlal Gandhi College of Technology, Salem.

4. Conducted a One Day Workshop on "MATLAB and Arduino Interface", 27th August 2016 for National Level Symposium on REINCO'Z 2K16 at Dhirajlal Gandhi College of Technology, Salem.

5. Delivered a Gust Lecture on "MATLAB and Arduino Interface", 08th August 2016 at C.S.I Polytechnic College, Salem.

6. Conducted a One Week Workshop on "PLC Programming and Industrial Automation" 09 to 14 May 2015 at Sona College of Technology, Salem.

7. Conducted a One Day Workshop on "In-House PCB Design and Manufacturing" 04th January 2015 at Sona College of Technology, Salem.

8. Conducted a One Month Value Added Course on "Graphical Simulation and Embedded Programming using MATLAB and Arduino" September 2014 at Sona College of Technology, Salem.

9. Delivered a Gust Lecture on "Simulation of Electrical Circuits using MATLAB", 03rd March 2014 at Rajaji Polytechnic College, Salem.

10. Delivered a Gust Lecture on "Simulation of Electrical Circuits using MATLAB", 27th March 2013 at C.S.I Polytechnic College, Salem.

Subject Handled

1. Basic Electrical and Electronics Engineering   3 times
2. Power Electronics   2 times
3. Electric Drives and Control/Solid State Drives   4 times
4. PLC and Industrial Automation   1 times
5. Electric Power Utilization and Energy Auditing   2 times
6. Linear Integrated Circuits and Applications   2 times
7. Electrical Engineering   1 times

8.	Professional Ethics	1 times
9.	Special Electrical Machines	2 times
10.	Electronics Devices and Circuits	1 times
11.	Analysis of Power Converters (ME-PED)	2 times
12.	Solid State AC Drives (ME-PED)	2 times
13.	Solid State DC Drives (ME-PED)	2 times
14.	Power Electronics Laboratory	2 times
15.	Electric Drives and Control Laboratory	3 times
16.	Electronics Devices and Circuits Laboratory	1 times
17.	Linear and Digital Integrated Circuits Laboratory	1 times
18.	Engineering Practice Laboratory	4 times
19.	Power Electronics Simulation Laboratory (ME-PED)	3 times
20.	Power Electronics and Drives Laboratory (ME-PED)	3 times

Computer Proficiency

- ➢ Simulation Software : MATLAB-Simulink, Orcad-PSpice, MultiSim, AutoCAD, Psim, MathCAD, CircuitMaker, PSCAD, Oscad, Proteus.
- ➢ Embedded Software : LabVIEW, Keil(μc), CCS(DSP), MPLAB(PIC), Xilinx(FPGA), ControlDesk(dSPACE), Arduino(IDE), RSLogix 500,CoDeSys(PLC), Vis Sim, Xpc(Speed Goat).
- ➢ Office Software : Microsoft Office, Adobe Photoshop, LaTeX.

Project During Studies

- ➢ Ph.D : An Intelligent Position Controller For Vertical Rotating Single Arm Robot Using BLDC Servo Drive
- ➢ M.E Title : SVM based Vector Controlled IM Drive using Fuzzy PI Controller.
- ➢ B.E Title : Automatic Accident Identification System.
- ➢ D.E.E.E Title : Personal Computer based Oscilloscope.

Under gone In Plant Training

1. Salem Steel Plant, Salem from 16.06.2007 to 28.06.2007
2. Electric Loco Shed, Erode from 19.06.2006 to 27.06.2006
3. SISCOL (Southern Iron and Steel Company Ltd), Pottaneri, Salem (dt) from 11.05.2004 to 25.05.2004.

Soft Skills

- ➢ Practical approach
- ➢ Exceptionally self motivated
- ➢ Knack to energize projects
- ➢ Enjoy working as a team
- ➢ Ability to influence others

Other Responsibilities Held

- Department Research and Development (R&D) In-Charge
- Ideation Innovation Incubation Promotion Cell (IIIPC) In-Charge
- Pradhan Mantri Kaushal Vikas Yojana (PMKVY) Skill Development Program Coordinator
- Engineers Day Coordinator
- Power Electronics Laboratory In-Charge
- Students Project In-Charge

Major Accomplishments

- Experience with defense (DRDO) funded research project.
- Best project award "Solar Powered Electric Vehicle", Engineers day celebration at DGCT.
- Developed a product for Textile-Power Loom Industrial Automation
- Reviewer of the International Journal of Electric Power Components and Systems.
- Certificate of merit for securing university rank during Dec-09, at M.E (PED).
- Experience in establishment of Power Electronics and Electric Drives Laboratory.
- Experience in establishment of Center for Industrial Drives and Renewable Energies Research and Developments.
- Experience in organization of national and international workshop and conferences.
- Got incentives for producing 100% results at TKEC.
- Experience in ISO, NAAC and NBA activities.
- Experience in placement and training activities.
- Life time member in ISTE (LM88773)
- Life time member in IAEng.
- Life time member in ISRD
- Member in Confederation of Indian Industries (CII), India

Personal Details

Father Name	:	Mr.C.Ramasamy
Date of Birth / Age	:	03.06.1986 / 32
Gender / Marital Status	:	Male / Single
Nationality / Religion	:	Indian / Hindu
Community	:	BC
Languages Proficiency	:	Tamil & English

Declaration

     I hereby declare that all the details and particulars furnished above are true, correct and complete to the best of my knowledge.

Thanking You.

Date: 05.09.2017

Place: Mecheri   **Signature**

(Dr.R.Manikandan)