




# SRM Valliammai Engineering College

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

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## Department of Electrical and Electronics Engineering

### Personal Details

<b>Name :</b>	Dr.G.MADHUSUDANAN		
<b>Designation :</b>	Assistant Professor (Sel..G)		
<b>Educational Qualification :</b>	M.E., Ph.D		
<b>Experience:</b>	22 Years 3 Months		
<b>Area of Specialization :</b>	Power Electronics and Drives		
<b>Date of Joining :</b>	10.08.2000		
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### Educational Details

S.No	Degree	Branch/Specialization	Institution / University	Year
1	B.E.	Electrical and Electronics Engineering	Bharathidasan University, Tiruchirappalli	1997
2	M.E.	Power Electronics and Drives Engineering	Bharathidasan University, Tiruchirappalli	2000
3	Ph.D.	Electrical Engineering	National Institute of Technology, Tiruchirappalli	2020

### Professional Society Memberships

1. IE(I) - Institution of Engineers (India): **MIE**
2. ISTE - Indian Society for Technical Education: **Life Member**
3. IEEE - Institute of Electrical and Electronics Engineers: **Senior Member**
4. ISC - Indian Science Congress Membership: **Member**
5. IAENG - International Association of Engineers: **Member**

### Publication Details

#### Journals:

1. Rakesh Namani, Babu Natarajan, Senthilkumar Subramaniam, Madhusudanang Gurusamy, "Single Stage Power Control Strategy for Nanogrid Connected Solar PV System", Distributed Generation & Alternative Energy Journal, vol: 37, Iss. 3, pp. 749-770, 2022.
2. Rakesh Namani, Senthilkumar Subramaniam, SarojiniMary Samikannu, Madhusudanang Gurusamy, "A simple control strategy and dynamic energy management for the operation of combined grid-connected and stand-alone solar photovoltaic applications", Journal of King Saud University-Engineering Sciences, pp. 1-9, 2021, DOI: 10.1080/15567036.2020.1831655.
3. Babu Natarajan, Praveen Murugesan, Malavya Udugula, Madhusudanang Gurusamy, Senthilkumar Subramaniam; "A Fixed interconnection technique of photovoltaic modules using a sensorless approach for maximum power enhancement in solar plants", Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, pp. 1-23, 2020, DOI: 10.1080/15567036.2020.1831655.
4. Namani Rakesh, S. Senthil Kumar, G. Madhusudanang; "Mitigation of power mismatch losses and wiring line losses of partially shaded solar PV array using Improved Magic Technique"; IET-Renewable Power Generation, 13, (9), pp. 1522-1532, 2019, DOI: 10.1049/iet-rpg.2018.5927.

5. G. Madhusudanan, Namani Rakesh, S. Senthil Kumar, and S. Sarojini Mary; "Solar Photovoltaic Array Reconfiguration using Magic Su-Do-Ku algorithm for Maximum Power Production under Partial Shading Conditions"; Taylor & Francis- International Journal of Ambient Energy, pp. 1-24, 2019, DOI: 10.1080/01430750.2019.1691654.
6. G. Madhusudanan, Subramaniam Senthilkumar, I. Anand, and Padmanaban Sanjeevikumar "A shade dispersion scheme using Latin square arrangement to enhance power production in a Solar photovoltaic array under partial shading conditions ". Journal of Renewable and Sustainable Energy Vol. 10, Iss. 5, 2018, DOI: 10.1063/1.5046366.
7. Dhineesh.T, Rajvi Mohammed.K, Arun Prasath.S, Hari Baskar.M & Madhusudanan.G, "Analysis of IoT based Wireless Sensors for Environmental Monitoring in Agriculture", International Research Journal of Engineering & Technology, Vol. 6, No. 3, pp. 610-614, March 2019 .
8. D.Sanjaykumar.S, Santhiya.E, Sivasakthi.S, Rabiylul Fahim.H & Madhusudanan.G, "Adaptive Headlights System for Vehicle using Arduino", International Research Journal of Engineering & Technology, Vol. 6, No. 3, pp. 1715-1720, March 2019 .
9. Karthikeyan S, Arun A, Dinesh K, Aravinthan A and Madhusudanan G, "Separation of Municipal Solid Wastes using Multi-Integrated System", IJSRD - International Journal for Scientific Research & Development, Vol.6, No.01, pp.1572-1575, March-2018.
10. Jenie Archana. J, Mathivadhana. R, Guruprasath. R, Dhanish. K and Madhusudanan. G, "Smart Battery System Applied to a Hybrid Electric Vehicle", International journal for Research & Development in Technology, Vol.3, No.3, pp.171-177.
11. N. Abinaya and G.Madhusudanan, "Improvement of voltage by Asymmetrical PWM Full Bridge Converter for Solar Energy", International Journal of Trend in Research and Development, Volume 3(6), Nov-201, pp-578-582.
12. Natesan.P, Madhusudanan.G, 'Compensation of Power quality problems in Traction power systems using direct power compensator', International Journal of Innovative Research in Science, Engineering and Technology, ISSN (online):2319-8753, ISSN (Print):2347-6710 Volume-3, Special Issue-3, March 2014.
13. Balaji K, Madhusudanan G, 'Modelling and Performance Analysis of a STATCOM Control for Induction Generator Based Windfarm', International Journal of Engineering and Technical Research (IJETR), ISSN: 2321-0869, Volume-2, Issue-1, January 2014.
14. Natesan.P, Madhusudanan.G, 'Analysis of Hybrid Power Compensator for Non-Linear Traction Loads', International journal of Engineering and Technical Research (IJETR), ISSN:2321-0869, Volume-2, Issue-1, January 2014.

#### **Conferences:**

1. Karthikeyan K, Madhusudanan G, ' Performance analysis of DFIG based wind energy systems using Direct power controller" in the National conference on Recent Trends in Modern Electronics and its applications (NC-RTMEA 2015) .
2. Vidhyasagar, Madhusudanan G, " Enhancement of Reactive power capacity of a PV grid in smart grid application" in the National conference on Recent Trends in Modern Electronics and its

applications(NC-RTMEA 2015).

3. Madhusudanan G,” Harmonic reduction and voltage unbalance compensation of Non- Linear traction load using direct power compensator” in the 3rd International Conference on Futuristic Trends in Electronics Engineering – ICFTEE2014, pp.5-8.

### Other Particulars

#### Events Participated:

1. A 5-day online FDP on the theme “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education (AICTE) from 31st January, 2022 to 4<sup>th</sup> February, 2022.
2. Innovation Ambassador training (Foundation Level, Total 16 Sessions of 30 contact hours) conducted by MoE's Innovation Cell & AICTE during the period from 30th June - 30th July 2021 in online mode.
3. AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "EV & Charging Infrastructure" from 26.07.2021 to 30.07.2021 at NATIONAL POWER TRAINING INSTITUTE - POWER SYSTEMS TRAINING INSTITUTE.
4. AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Soft Computing Techniques and their Applications in Electrical Engineering" from 28.06.2021 to 02.07.2021 at National Institute of Technology Patna.
5. AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "ELECTRIC VEHICLE TECHNOLOGY: CHALLENGES AND BUSINESS OPPORTUNITY" from 21.06.2021 to 25.06.2021 at NATIONAL SMALL INDUSTRIES CORPORATION.
6. AICTE Training and Learning (ATAL) Academy Online FDP on "Advances in Power Electronics for Hybrid Electric Vehicle-2020" from 11.12.2020 to 15.12.2020 at National Institute of Technology Andhra Pradesh.
7. AICTE Training and Learning (ATAL) Academy Online FDP on "Energy Engineering" from 23.11.2020 to 27.11.2020 at Indian Institute of Technology Roorkee.
8. A 5 days Online Faculty Development Programme on Practical Challenges in the Design and Development of Electric Vehicles - 2020 (PCEV-2020) held during August 24th - 28th, 2020 organized by the Department of Electrical Engineering, National Institute of Technology Calicut.
9. Three day online workshop on “Online Course Design, Develop and Delivery” organized by UGC- Human Resource Development Centre, University of Hyderabad on 06 - 08 May 2020.
10. A one day workshop on “Examination reforms for AICTE approved Institutions” organized by All India Council for Technical Education at PSG college of Technology Coimbatore on 07.05.2019
11. Short Term course on Photovoltaic Module Interconnection Schemes and MPPT Implementation, NIT, Trichy, May 2016.
12. Short Term course on Application of Power Electronics to Renewable Energy Systems and Micro Grids, NIT, Trichy.
13. National Seminar on “Solar Power Plants for Residential, Commercial utility and Off-Grid applications”, IEEE Power & Energy Society, National Institute of Technology Calicut, 17<sup>th</sup> -18<sup>th</sup>, December 2014.
14. Short Term course on Computational Intelligence Techniques in Engineering, IEEE Madras section, October 2012.
15. AICTE-QIP Sponsored Short-Term Course on “Electrical Machines and Power Electronics in Renewable Energy Systems” Under the Quality Improvement Programme during 28th January 2008 – 1st February 2008. NIT, Trichy.

16. Technical Education Quality Improvement Programme (TEQIP) on FUZZY SYSTEMS for Engineering College Teachers, NIT, Trichy, February 2007.
17. Short Term course on Renewable Energy technologies for Engineering and Educational Institutions, MNES, Chennai, August 2006.
18. FDP on “Training on AU Power Lab”, Anna University, June 2004.