# Sri Sai Ram Engineering College

**Department of Electrical and Electronics Engineering** 

1. Name: P.Rajakumar	
2. Designation:	Associate Professor
3. Qualification :	B.E, M.E (Phd)
Area of Specialization :	Power Electronics & Drives, Power Systems
5. Experience :	Teaching: <b>UG:</b> 20 yrs PG: 6 YRS Industry: 6 yrs & 2 Months
6. No. of workshop : FDP attended :	10 13
7. Publication :	Journal National: NIL International: Thirteen Conference National: 12 International: 10
8. Research Guidance :	24 UG projects and 16 PG Projects guided
9. General :	Two Months undergone training programme, "Design of Photovoltaic based custom power devices" under the scheme "Mentoring of Engineering Teachers by INAE Fellow" at IIT Delhi under the supervision of Dr.Sukumar Mishra, Professor / Dept of EEE.
10. Staff Achievements:	SEC: Detail mentioned below  Vel Multi-Tech: UG: 3 times cash award received for best Results.

## **EXPERIENCE**:

a) Teaching & Learning

a) rodoming a zodmin		Designation Joining		Experience		
Name of the College	Designation	Joining Relieving Date Date	_	Yea rs	Month s	Day s
Sri Sai Ram Engineering College	Associate Prof	1.08.2014	Till date	8	6	0
Sri Sai Ram Engineering College GKM College of	Assistant Prof	21.01.2011	31.07.2014	3	6	10
Engineering & Technology	Sr.Lecturer	29.06.2009	19.01.2011	1	6	20
KCG College of Technology	Sr.Lecturer	23.08.2007	23.06.2009	1	10	0
Vel Multi-Tech (Formerly Vel S.R.S College of Multimedia)	Lecturer	26.05.2003	4.8.2007	4	2	8
	•	•	Total	19	7	8

## b) Industrial

Name of the	Designatio	Nature of	Joining Relievin		xperience	perience	
Organisation	n	Work	Date	g Date	Year s	Month s	Day s
Media Electrical & Electronics Services Pvt Ltd  Ignition Products (India) Pvt Ltd	Sr.Electrical Engineer Design Engineer	Design of Control Panel, Distributio n boards  Design of small capacity turbo generator	01.12.200 1 01.06.199 6	26.04.200 3 18.04.200 1	1	11	22
			•	Total	6	2	10

## **BOOKS PUBLISHED:**

Written three monograms for the benefit of students at Vel Multi Tech Engineering College,

1. Power Electronics,

- 2. Power System Analysis
  3. Network Analysis and Synthesis.

  RESEARCH PUBLICATIONS:

#### a)Patent:

SI.No	Details of Publications	Status
1	INTELLIGENT ROBOT FOR GRASS CUTTING USING	Published on
	ANDROID APPLICATION	30.10.2020
2	AN INTELLIGENT SMART STREET LIGHT SYSTEM WITH	Published on 6.11.2020
	SAFETY TECHNOLOGY AND ENVIRONMENT MONITORING	
3.	DESIGN AND IMPLEMENTATION OF SMART AIR QUALITY	Published on 7.05.2021
	DETECTION SYSTEM BASED ON	
	IOT	
4	BIOMETRIC FINGERPRINT BASED VOTING MACHINE	Published on 25.11.2022

b)International Journal

SI.No	Details of Publications		
	Sthitprajna Mishra, Bibhu Prasad Ganthia, Abel Sridharan, Rajakumar. P,D. Padmapriya, Dr.		
1.	S. Kaliappan, "Optimization of Load Forecasting in Smartgrid		
	using Artificial Neural Network based NFTOOL		
	and NNTOOL", Journal of Physics: Conference Series,		
	doi:10.1088/1742-6596/2161/1/012068, Jan'2022.		
	Rajakumar.P, R.Saravanakumar, "An Investigation of Power Quality Enrichment using		
2	UPQC with AI and Swarm Intelligence Methods", International Journal of Pure and		
	Applied Mathematics", ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line		
	version), Volume 117 No. 16 2017, pp-705-712, Dec'2017.		
	Rajakumar. P, R.Saravanakumar, R.Thirumalaivasan, "Efficiency Enhancement of PV		
3	based Dynamic Voltage Restorer using Zeta converter", International Journal of Applied		
	Engineering Research, ISSN 0973-4562, vol-10, No-18, PP-38724-3872, Oct'2015.		
	Rajakumar.P, R.Saravanakumar, "Design of Fuzzy Logic Controller for DSTATCOM",		
4	International Journal on Advanced Materials Research, ISBN 978-3-03835-058-3,		
	vol-905, PP- 401-405, Apr'2014.		
_	Rajakumar. P, J.Shankar, R.Saravanakumar, S.B.Sabberwal, "Review on Power Quality		
5	Issues", IRACST – Engineering Science and Technology: An International Journal		
	(ESTIJ), ISSN: 2250-3498, Vol.2, No.1, Feb'2012.		

## c) International Conference

SI.No	Details of Publications	
	Rajakumar.P, Mohan S, Gokul J, Janani E, Srimathi K, Pavithra P, "INTIMATION OF	
1	ACCIDENT ZONE LOCATION", 2022 International Conference on Power, Energy,	
	Control and Transmission Systems (ICPECTS), Feb'2023.	

2	Rajakumar.P, Sai Siddhaarth B, Sriram B, Rajasekhar S "AUTOMATION OF ROOM LIGHTING SYSTEM USING ARDUINO AND PIR SENSOR", 2022 International
	Conference on Power, Energy, Control and Transmission Systems (ICPECTS), Feb'2023.
	Rajakumar.P, Barath Kanna.C, Archana R, Akshaya.A, Abhinaya.K, Boobalan.M,
	"AUTOMATION OF ROOM LIGHTING SYSTEM USING ARDUINO AND PIR
3	SENSOR", 2022 International Conference on Power, Energy, Control and Transmission
	Systems (ICPECTS), Feb'2023
4	Rajakumar.P, K.Suresh, Boobalan.M, Gokul.M, Darunkumar.G, , Archana R, "IoT
'	Based Voice Assistant using Raspberry Pi and Natural Language Processing"
	Mohan S , Rajkumar.K , <b>Rajakumar.P</b> , Hari Pradosh S M, Gandhi S,
5	Balasakthishwaran M, " AUTOMATIC SOLAR TRACKING SYSTEM", 2022
	International Conference on Power, Energy, Control and Transmission Systems
	(ICPECTS), Feb'2023
	Rajakumar. P, Puviarasi,S.Singh, "Power Management and Advanced Metering
	Infrastructure Using Wireless Network in Remote Areas", First IEEE International Conference
6	on Power, Energy, Control and Transmission(ICPECT'18), DOI:
	10.1109/ICPECTS.2018.8521617, at Sri Sairam Engineering College, Chennai,
	Feb'2018.
	Rajakumar. P, Dr.R.Saravanakumar, R.Thirumalaivasan, "Power Quality Improvement
7	using photovoltaic based DVR" First IEEE International Conference on Advances in
	Electrical Engineering (ICAEE'14), DOI:10.1109/ICAEE.2014.6838512 , at VIT
	University, Vellore, on 9.01.2014.
	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX
8	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical
8	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.
	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE
8	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE INVERTER", International Conference on recent trends in Electrical Engineering at
	<ul> <li>Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.</li> <li>Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE INVERTER", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.</li> </ul>
	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE INVERTER", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, A. Manoj Mathew, "Design And Implementation Of DSTATCOM For
	<ul> <li>Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.</li> <li>Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE INVERTER", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.</li> <li>Rajakumar. P, A. Manoj Mathew, "Design And Implementation Of DSTATCOM For Fast Load Compensation Of Critical Loads", International Conference on Computational</li> </ul>
9	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE INVERTER", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, A. Manoj Mathew, "Design And Implementation Of DSTATCOM For Fast Load Compensation Of Critical Loads", International Conference on Computational Intelligence & Advanced Manufacturing Research ICCIAMR 2013, Vol-4, ISBN -
9	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE INVERTER", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, A. Manoj Mathew, "Design And Implementation Of DSTATCOM For Fast Load Compensation Of Critical Loads", International Conference on Computational Intelligence & Advanced Manufacturing Research ICCIAMR 2013, Vol-4, ISBN - 978-81- 924031-7-5, Mar'2013.
9	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE INVERTER", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, A. Manoj Mathew, "Design And Implementation Of DSTATCOM For Fast Load Compensation Of Critical Loads", International Conference on Computational Intelligence & Advanced Manufacturing Research ICCIAMR 2013, Vol-4, ISBN - 978-81- 924031-7-5, Mar'2013.  Rajakumar. P, G.Ramprakash, "Matrix Converter Based Unified Power Quality
9	Rajakumar. P, G.Nithya, "DIRECT POWER CONTROL STRATEGIES FOR 3MATRIX CONVERTER BASED UPFC", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, B.Mohanapriya, "HYBRID POWER SYSTEM BASED Z-SOURCE INVERTER", International Conference on recent trends in Electrical Engineering at Adhiparasakthi Engineering College, feb'2012.  Rajakumar. P, A. Manoj Mathew, "Design And Implementation Of DSTATCOM For Fast Load Compensation Of Critical Loads", International Conference on Computational Intelligence & Advanced Manufacturing Research ICCIAMR 2013, Vol-4, ISBN - 978-81- 924031-7-5, Mar'2013.

## d) National Conference

SI.No	Details of Publications	
	Rajakumar. P, "Presented a paper titled "Power Quality Improvement Using STATCOM	
1.	based Cascaded Multilevel Inverter", National level (ETIPS'08) conference held in Vel	
	Multi-Tech SRS Engineering College, Avadi on 8.08.2008.	

## 1.Professional Membership

SI.No	Details	Status
1	ISTE	Life member
2	IEEE and Intelligent Transport System Society (ITSS)	Active
3.	INAENG society of Electrical Engineering	Active

#### 2.Awards Received

SI.No	Details	
1	Best Mentor (SKILL RACK POINTS AND PLACED IN HIGHER PACKAGE)	
2	InSc Awards 2021 for guidance of UG project	
3	IEEE senior member	

## 3. Roles and Responsibility in Sri Sairam Engineering College

SI.No	Details
1	Placement Facilitator
2	NAAC 5 <sup>th</sup> criterion Department coordinator, NBA 9 <sup>th</sup> Criterion Department coordinator, NIRF
3	Department Salesforce coordinator
4	Department Alumni Coordinator
5	Department Result coordinator (2020-2024)
6	Acted as EEE board chairman in SEC (2021-2022)
7	Live-in Lab Department coordinator
8	Mini-Project coordinator(2020-2021)

## 4. Guest Lecture given

SI.No	Topics	Place
	Anna University sponsored FDTP	Department of Electrical and Electronics
1.	on Electrical Machines-1	Engineering, Valliammai Engineering College,
		Chennai on 9.05.2019
	Anna University sponsored FDTP	Department of Electronics and Instrumentation, Sri
2.	on Power Electronics DC-DC	Sairam Engineering College, Chennai on
	Converter and its applications.	4.06.2015.

## 5. FDP/STTP/QIP attended

SI.No	Name of the Programme	Topics	Place and date
	Online FDP	Electric Vehicle Drive	Online FDP from 27.02.2023 to
1.		Systems	4.03.2023 Jerusalam College of
			Engineering
2.	ISTE sponsored FDP	Renewable Energy Systems	Sri Sairam Engineering
			College(online mode), from
			8.02.2021 to 12.02.2021
3.	AICTE sponsored Six	Mitigation of power quality	R.M.D. Engineering College, from
	days Online STTP	Issues in Distributed	17.08.2020 to 24.08.2020.
3.		Generation Systems using	
		Custom Power Devices-II	
4.	ATAL FDP	Smart Cities	VIT university, Vellore (Online
			mode), from 1.02.2021 to 5.02.2021
_	ATAL FDP	Stress-management	Gauhati University Institute of
			Science and Technology(online
5.			mode), from 21.09.2020 to
			25.09.2020.
6.	ATAL FDP	Green Technology &	Aligarh Muslim University (Online
		Sustainability Engineering	mode), from 7.09.2020 to
			11.09.2020
	ATAL FDP	Advances in Power	NIT, Andhra Pradesh, from
7.		Electronics for Hybrid	11.12.2020 to 15.12.2020
		Electric Vehicle-2020	
0	FDP	Circuit Design using	ICT Academy(online mode), from
8.		AutoCAD Electrical	25.01.2021 to 30.01.2021
	AICTE	Emerging Power	National Institute of Technology,
	Margadharsan scheme sponsored	Conversion Techniques and	Trichy, from 24.06.2019 to
9.		challenges for Renewable	28.06.2019
	FDP	energy and Electric Vehicle	
		Applications	
10.	National Level FDP	Electrical Simulation	Sri Sairam Engineering College,
		Software	from 06.11.17 to 10.11.17
11.	Anna University	Power Electronics	Sri Sairam Engineering College,
	sponsored FDTP		from 1.06.2015 to 8.06.2015.

12.	Anna University	Applied Soft Computing /	SSN College of Engineering, from
12.	sponsored FDP	Intelligent Control	11.06.2014 to 18.06.2014.
13.	Anna University	Flexible AC Transmission	SSN College of Engineering, from
13.	sponsored FDP	Systems	30.05.2013 to 11.06.2013.
14.	AICTE sponsored	Computational Intelligence	Pondicherry Engineering College,
	SDP	on Power System Analysis,	from 1.06.2011 to 13.06.2011.
		Control and optimization	
15.	Anna University	Modern method of	Vel Hi-Tech College of Engineering.
	sponsored FDP	Teaching	
16.	Anna University	Power Electronics	Easwari Engineering College.
	sponsored FDP		
17	Anna University	Instructional design and	Vel Multi-Tech College of
	sponsored QIP	delivery	Engineering.

## 6.Training Program attended

- ♦ Fifteen days Undergone Faculty Industrial Training at **GH Induction India Pvt Ltd,** Thirumudivakkam, Chennai.
- ♦ Two Months undergone training programme, "Design of Photovoltaic based custom power devices" under the scheme "Mentoring of Engineering Teachers by INAE Fellow" at IIT Delhi under the supervision of Dr.Sukumar Mishra, Associate Prof / Dept of EEE.

## **7.NPTEL Course completed**

SI.No	Topics	Duration
1.	Enhancing Soft Skills and	From Jan-Nov'2020
	Personality	
2.	Intellectual Property	From Jan-Apr'2021
3	Physics of Renewable Energy	From Jun-Nov'2022
	Systems	

#### 7. Workshop Attended

Sl.N	Name of the Programme	Topics	Place
O			
1.	Anna University sponsored Workshop	Electro Magnetic Theory Revisited	MIT Campus, Anna University, Chennai
2.	Anna University sponsored Workshop	Digital System Design using VHDL	Vel Hi-Tech College of Engineering.
3.	3 <sup>rd</sup> National submit on	Sustainable Institute Industry Partnership (SIIP)	IIT Madras Chennai