# Sri Sai Ram Engineering College Department of Electrical and Electronics Engineering

| 1. Name : <b>P.Rajakumar</b>           |   |
|--|---|
| 2. Designation:                        | Associate Professor   |
| 3. Qualification :                     | B.E, M.E (Phd)  |
| 4. Area of Specialization :            | Power Electronics & Drives, Power<br>Systems  |
| 5. Experience :                        | Teaching : <b>UG:</b> 20 yrs<br>PG : 6 YRS<br>Industry : 6 yrs & 2 Months   |
| 6. No. of workshop :<br>FDP attended : | 10<br>13  |
| 7. Publication :                       | Journal<br>National : NIL<br>International : Thirteen<br>Conference<br>National : 12<br>International : 10  |
| 8. Research Guidance :                 | 24 UG projects and<br>16 PG Projects guided   |
| 9. General :                           | Two Months undergone training<br>programme, "Design of Photovoltaic<br>based custom power devices" under the<br>scheme "Mentoring of Engineering<br>Teachers by INAE Fellow" at IIT<br>Delhi under the supervision of<br>Dr.Sukumar Mishra, Professor / Dept<br>of EEE. |
| 10. Staff Achievements:                | SEC: Detail mentioned below<br>Vel Multi-Tech: UG : 3 times cash<br>award received for best Results.  |

#### EXPERIENCE: a) Teaching & Learning

|  | Designation    | Joining Relieving<br>Date Date |            | Experience |        | e    |
|--|----------------|--------------------------------|------------|------------|--------|------|
| Name of the College                                  | Designation    |                                |            | Yea<br>rs  | Months | Days |
| Sri Sai Ram Engineering<br>College                   | Associate Prof | 1.08.2014                      | Till date  | 8          | 11     | 0    |
| Sri Sai Ram Engineering<br>College<br>GKM College of | Assistant Prof | 21.01.2011                     | 31.07.2014 | 3          | 6      | 10   |
| Engineering &<br>Technology                          | Sr.Lecturer    | 29.06.2009                     | 19.01.2011 | 1          | 6      | 20   |
| KCG College of<br>Technology                         | Sr.Lecturer    | 23.08.2007                     | 23.06.2009 | 1          | 10     | 0    |
| Vel Multi-Tech<br>(Formerly Vel S.R.S                | Testamon       |                                |            |            |        |      |
| College of Multimedia)                               | Lecturer       | 26.05.2003                     | 4.8.2007   | 4          | 2      | 8    |
|  |                |                                | Total      | 20         | 0      | 8    |

#### b) Industrial

| Name of the   | Name of the Nature of     | Joining Relieving   | Experience     |            |       |        |      |
|---|---------------------------|---|----------------|------------|-------|--------|------|
| Organisation  | Designation               | Work  | Date           | Date       | Years | Months | Days |
| Media<br>Electrical &<br>Electronics<br>Services Pvt<br>Ltd | Sr.Electrical<br>Engineer | Design of<br>Control<br>Panel,<br>Distribution<br>boards<br>Design of | 01.12.200<br>1 | 26.04.2003 | 1     | 4      | 22   |
| Ignition<br>Products<br>(India) Pvt Ltd                     | Design<br>Engineer        | small<br>capacity<br>turbo<br>generator                               | 01.06.199<br>6 | 18.04.2001 | 4     | 11     | 18   |
|   | Total                     |   |                |            | 6     | 2      | 10   |

#### **BOOKS PUBLISHED:**

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

1. Power Electronics,

Power System Analysis
Network Analysis and Synthesis.

### **RESEARCH PUBLICATIONS:**

#### a)Patent:

| SI.No | Details of Publications                        | Status                  |
|-------|--|-------------------------|
| 1     | INTELLIGENT ROBOT FOR GRASS CUTTING USING      | Published on 30.10.2020 |
|       | ANDROID APPLICATION                            |                         |
| 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   |  |  |
|----------|---|--|--|
|          | Rajakumar.P. and R.Saravanakumar, 'Interline Unified Power Quality Conditioner For                |  |  |
| 1.       | Enhancing Power Quality Using Fofpid-Based Interleaved Cuk Converter', International Jour-        |  |  |
| 1.       | nal on Recent and Innovation Trends in Computing and Communication 11(9s), 698–                   |  |  |
|          | 705,Aug'2023  |  |  |
|          | Sthitprajna Mishra, Bibhu Prasad Ganthia, Abel Sridharan, <b>Rajakumar. P</b> ,D. Padmapriya, Dr. |  |  |
|          | S. Kaliappan, "Optimization of Load Forecasting in Smartgrid                                      |  |  |
| 2        | 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                   |  |  |
| 3        | 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                   |  |  |
| 4        | 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",                    |  |  |
| 5        | 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                 |  |  |
|          | Issues", IRACST – Engineering Science and Technology: An International Journal                    |  |  |
|          | (ESTIJ), ISSN: 2250-3498, Vol.2, No.1, Feb'2012.  |  |  |
| c) Inter | rnational Conference  |  |  |
| SI.No    | Details of Publications   |  |  |

|   | <b>Rajakumar.P,</b> Mohan S, Gokul J, Janani E, Srimathi K, Pavithra P, "INTIMATION OF  |  |  |
|---|---|--|--|
| 1   | ACCIDENT ZONE LOCATION", 2022 International Conference on Power, Energy,  |  |  |
| 1   | Control and Transmission Systems (ICPECTS), Feb'2023.   |  |  |
|   |   |  |  |
| 2   | <b>Rajakumar.P</b> , Sai Siddhaarth B, Sriram B, Rajasekhar S "AUTOMATION OF ROOM   |  |  |
| 2   | LIGHTING SYSTEM USING ARDUINO AND PIR SENSOR", 2022 International   |  |  |
| Conference on Power, Energy, Control and Transmission Systems (ICPECTS) |   |  |  |
|   | Rajakumar.P, Barath Kanna.C, Archana R, Akshaya.A, Abhinaya.K, Boobalan.M,  |  |  |
| 3   | "AUTOMATION OF ROOM LIGHTING SYSTEM USING ARDUINO AND PIR   |  |  |
|   | SENSOR", 2022 International Conference on Power, Energy, Control and Transmission   |  |  |
|   | Systems (ICPECTS), Feb'2023   |  |  |
|   | <b>Rajakumar.P</b> , K.Suresh, Boobalan.M, Gokul.M, Darunkumar.G, Archana R, "IoT   |  |  |
| 4   | Based Voice Assistant using Raspberry Pi and Natural Language Processing",2022<br>International Conference on Power, Energy, Control and Transmission Systems |  |  |
|   | (ICPECTS), Feb'2023   |  |  |
|   |   |  |  |
|   | Mohan S , Rajkumar.K , Rajakumar.P, Hari Pradosh S M, Gandhi S,   |  |  |
| 5   | Balasakthishwaran M, "AUTOMATIC SOLAR TRACKING SYSTEM", 2022  |  |  |
| 5   | 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  |  |  |
| 8   | 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  |  |  |
| 9   | 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   |  |  |
| 10  | 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       |  |  |
|-----|---|--|--|
| 11. | Conditioner", 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 Intelligent Transport System Society (ITSS) | Active      |
| 3.    | INAENG society of Electrical Engineering         | Active      |
| 4.    | IEEE Power and Energy Society (PES)              | Active      |
| 5.    | IEEE Power Electronics Society (PELS)            | Active      |
| 6.    | IEEE Industrial Electronics Society (IES)        | Active      |
| 7.    | IEEE Industrial Automation Systems (IAS)         | 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 of Responsibility   |  |
|-------|---|--|
| 1     | EEE Department Placement Facilitator (2019 onwards)   |  |
| 2     | NAAC 5 <sup>th</sup> criterion Department coordinator, NBA 9 <sup>th</sup> Criterion Department coordinator, NIRF |  |
| 3     | Department Salesforce coordinator(2018 onwards)   |  |
| 4     | Department Alumni Coordinator (2017 onwards)  |  |
| 5     | Department Result coordinator (2020-2024)   |  |
| 6     | Acted as EEE board chairman in SEC (2021-2022)  |  |
| 7     | Live-in Lab Department coordinator (2020-2021)  |  |
| 8     | Innovation Design Project Coordinator (2022-2023)   |  |
| 9     | Project Coordinator(2023-2024)  |  |

# 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 4.06.2015.  |
|       | Converter and its applications. |  |

## 5. FDP/STTP/QIP attended

| SI.No | Name of the                 | Topics                             | Place and date              |
|-------|-----------------------------|------------------------------------|-----------------------------|
|       | Programme                   |                                    |                             |
| 1.    | CDAC, NAMPET                | Power Electronics applications to  | VIT University, Vellore     |
|       | sponsored short term course | Smart Grid and integration of      | from 27.11.2023 to          |
|       |                             | Renewable Energy source            | 1.12.2023                   |
|       |                             | (PESGRE 2023)                      |                             |
| 2.    | Online FDP                  | Electric Vehicle Drive Systems     | from 27.02.2023 to          |
|       |                             |                                    | 4.03.2023 Jerusalam         |
|       |                             |                                    | College of Engineering      |
| 3.    | ISTE sponsored FDP          | Renewable Energy Systems           | Sri Sairam Engineering      |
|       |                             |                                    | College(online mode), from  |
|       |                             |                                    | 8.02.2021 to 12.02.2021     |
| 4.    | AICTE sponsored Six         | Mitigation of power quality Issues | R.M.D. Engineering          |
|       | days Online STTP            | in Distributed Generation Systems  | College, from 17.08.2020 to |
|       |                             | using Custom Power Devices-II      | 24.08.2020.                 |
| 5.    | ATAL FDP                    | Smart Cities                       | VIT university, Vellore     |
|       |                             |                                    | (Online mode), from         |
|       |                             |                                    | 1.02.2021 to 5.02.2021      |

| 6.  | ATAL FDP                                      | Stress-management   | Gauhati University Institute<br>of Science and<br>Technology(online mode),<br>from 21.09.2020 to<br>25.09.2020. |
|-----|---|---|---|
| 7.  | ATAL FDP                                      | Green Technology & Sustainability<br>Engineering  | Aligarh Muslim University<br>(Online mode), from<br>7.09.2020 to 11.09.2020                                     |
| 8.  | ATAL FDP                                      | Advances in Power Electronics for<br>Hybrid Electric Vehicle-2020   | NIT, Andhra Pradesh, from 11.12.2020 to 15.12.2020  |
| 9.  | FDP   | Circuit Design using AutoCAD<br>Electrical  | ICT Academy(online<br>mode), from 25.01.2021 to<br>30.01.2021   |
| 10. | AICTE Margadharsan<br>scheme sponsored<br>FDP | Emerging Power Conversion<br>Techniques and challenges for<br>Renewable energy and Electric<br>Vehicle Applications | National Institute of<br>Technology, Trichy, from<br>24.06.2019 to 28.06.2019                                   |
| 11. | National Level FDP                            | Electrical Simulation Software  | Sri Sairam Engineering<br>College, from 06.11.17 to<br>10.11.17   |
| 12. | Anna University<br>sponsored FDTP             | Power Electronics   | Sri Sairam Engineering<br>College, from 1.06.2015 to<br>8.06.2015.  |
| 13. | Anna University<br>sponsored FDP              | Applied Soft Computing /<br>Intelligent Control   | SSN College of<br>Engineering, from<br>11.06.2014 to 18.06.2014.  |
| 14. | Anna University<br>sponsored FDP              | Flexible AC Transmission Systems  | SSN College of<br>Engineering, from<br>30.05.2013 to 11.06.2013.  |
| 15. | AICTE sponsored<br>SDP                        | Computational Intelligence on<br>Power System Analysis, Control<br>and optimization                                 | Pondicherry Engineering<br>College, from 1.06.2011 to<br>13.06.2011.  |
| 16. | Anna University<br>sponsored FDP              | Modern method of Teaching   | Vel Hi-Tech College of<br>Engineering.  |
| 17  | Anna University<br>sponsored FDP              | Power Electronics   | Easwari Engineering<br>College.   |
| 18  | Anna University<br>sponsored QIP              | Instructional design and delivery   | Vel Multi-Tech College of<br>Engineering.   |

#### **6.Training Program attended**

 Fifteen days Undergone Faculty Industrial Training at GH Induction India Pvt Ltd, Thirumudivakkam, Chennai.

#### **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                         |                   |
| 4     | Accreditation and Outcome based | From Jul-Oct'2023 |
|       | education                       |                   |

#### 7.Workshop Attended

| Sl.No | Name of the Programme                 | Topics   | Place                               |  |
|-------|---------------------------------------|--|-------------------------------------|--|
| 1.    | Anna University                       | Electromagnetic Theory                               | MIT Campus, Anna                    |  |
|       | sponsored Workshop                    | Revisited  | University, Chennai                 |  |
| 2.    | Anna University<br>sponsored Workshop | Digital System Design using<br>VHDL                  | Vel Hi-Tech College of Engineering. |  |
| 3.    | 3 <sup>rd</sup> National summit on    | Sustainable Institute Industry<br>Partnership (SIIP) | IIT Madras Chennai                  |  |