SRI SAI RAM ENGINEERING COLLEGE

DEPARTMENT OF MECHANICAL ENGINEERING

Name: SIVA CHANDRAN. S	
Designation:	ASSISTANT PROFESSOR
Qualification:	MASTER OF ENGINEERING
Area of Specialization:	SOLAR ENERGY
Experience:	Teaching- 10 YEARS 10 MONTH
	Industry:- NIL
Number of Workshops/ Conferences/ FDP Attended:	WORKSHOP- 03 FDP:20 NATIONAL/INT. CONFERENCE- 1
Publication:	Journal: National : 10 **International: 11**
	Conference: National: **International: 07**
Contact Details:-	Email:- sivachandran.mech@sairam.edu.in Phone:- 87787 11187 / 95788 92485
Staff Achievement	1. Produced 100% Result in Engineering Thermodynamics for Mechanical UG Students. 2. Produced 100% Result in Engineering Graphics for Mechanical UG Students.

	3. Produced 100% Result in Thermal Engineering – II, Power Plant Engineering and Basic Civil and Mechanical Engineering Subjects for Mechanical Engineering and Electrical Engineering Students.

Educational Qualification:-

Course	Institution / University	Year of passing	Percentage (%)
M.E (SOLAR)	College of Engineering, Guindy	2016	8.46 (CGPA)
B.E (MECH)	Sri Venkateswara College Of Engineering And Technology	2012	8.19 (CGPA)
H.S.C	Govt.Hr.Sec.School, Lalgudi	2008	89.3
S.S.L.C	Govt.Hr.Sec.School, Lalgudi	2006	89.4

Professional Experience:

Sl. No	College/Organization	Designation	Period From To	Total period	Nature of work
1.	Sri Sai Ram Engineering College	Assistant Professor	16.06.2016 – Till Date	9 YEARS 1 Months	Teaching
2.	K. Ramakrishnan College of Engineering	Lecturer	08.08.2012 – 24.04.2014	1 YEAR 9 Months	Teaching

Papers published in the international conferences:

Short Term Course (Refresher courses) Attended: Attended 20 days Faculty Induction Program Organized by TLC @ IITM (02/12/2019 to 14/12/2019 & 20/01/2020 to 27/01/2020)

Faculty/Staff Development /Training Program (Orientation programmes) Attended: 16

1. AICTE Sponsored Two Weeks FDP on "**MODELING AND CONTROL OF HIGH EFFICIENCY ELECTRIC AND HYBRID VEHICLES AND THE FUTURE VEHICLE FLEET IN 2030"** Organized by the Department of Automobile Engineering Conductued from 10th to 23rd 2019.

2. One Week FDP On "**ENGINEERING AND MANAGEMENT TEACHING PEDAGOGY - AN INDUSTRY PERSPECTIVE**"from 11.5.2020 - 16.05.2020

3. One Week Faculty Development Programme on "**MODELLING AND OPTIMIZATION TECHNIQUES FOR MATERIALS AND MANUFACTURING PROCESSES**" from 18/05/2020 to 22/05/2020.

4. Five Days online FDP on "**MATERIALS FOR THERMAL AND RENEWABLE ENERGY RESEARCH**" from 20.05.2020 -24.05.2020

5. Seven Days Faculty Development Program on "**ETHICAL PRACTICES IN ENGINEERING**" from 28th May to 03rd June 2020.

6. Five Days Faculty Development Programme on "**RENEWABLE ENERGY TECHNOLOGIES, INTEGRATIN TO THE POWER GRID & E – VEHICLE**" from 28th May 2020 – 01st June 2020.

7. Faculty Development Program on "**OUTCOME BASED EDUCATION SOFTWARE"** Organised by vmedulife software services on 11th June, 2020.

8. Five days Faculty Development Programme on "**RENEWABLE ENERGY SYSTEMS**" Organized by Panimalar Institute of Technology from 8th to 12th June 2020.

9. Five days AICTE Training and Learning(ATAL) Academy Online Faculty Development Programme on "**3D PRINTING & DESIGN**" from 15.06.2020 to 19.06.2020 at NIT WARANGAL.

10. One Week Faculty Development Programme on "**EMBRACING THE CREATIVE SIDE OF TEACHING AND LEARNING METHODS**" Organized by RMK college of Engineering and Technology from 29/06/2020 to 03/07/2020.

11. Five days AICTE Training and Learning (ATAL) Academy Online Faculty Development Programme on "**ELECTRIC VEHICLES**" from 30.11.2020 to 04.12.2020 at IFET COLLEGE OF ENGINEERING.

12. Five days AICTE Training and Learning (ATAL) Academy Online Faculty Development Programme on "**Applications of Artificial Intelligence in Mechanical Engineering**" from 02.08.2021 to 06.08.2021 at K. RAMAKRISHNAN COLLEGE OF ENGINEERING.

13. Six Days Online International Faculty Development Programme on "**RESEARCH INNOVATIONS AND EMERGING ADVANCES IN ELECTRICAL ENGINEERING**" Organized by Department of Electrical and Electronics Engineering of Easwari Engineering College from 14/06/2021 to 19/06/2021.

14. Five days AICTE Training and Learning (ATAL) Academy Online Faculty Development Programme on "**DESIGN AND DEVELOPMENT OF ELECTRIC VEHICLE**" from 09.07.2021 to 13.07.2021 at Francis Xavier Engineering College.

15. Five days AICTE Training and Learning (ATAL) Academy Online Faculty Development Programme on "**ELECTRIC VEHICLE TECHNOLOGY: CHALLENGES AND BUSINESS OPPORTUNITY**" from 08.11.2021 to 12.11.2021 at NATIONAL SMALL INDUSTRIES CORPORATION.

16. Twelve-week NPTEL – AICTE Faculty Development Programme on "**ELECTRIC VEHICLES AND RENEWABLE ENERGY**" with a consolidated score of 76% from Jul – Oct 2021.

17. One Week Faculty Development Programme on "**Impact of Digital Pedagogy In Professional Development of Engineering Teachers**" Organized by Sri Sai Ram Institute of Technology from 21/01/2022 to 28/01/2022.

18. Four-week NPTEL – AICTE Faculty Development Programme on "**Teaching And Learning in Engineering (TALE)**" with a consolidated score of 79% from Jan – Feb 2022.

19. Four-week NPTEL – AICTE Faculty Development Programme on "**Electric Vehicles - Part 1**" with a consolidated score of 63% from Feb – Mar 2022.

20. One Week Faculty Development Programme on "**Impact of Digital Pedagogy In Professional Development of Engineering Teachers**" Organized by Sri Sai Ram Institute of Technology from 21/01/2022 to 28/01/2022.

Resource person in Various Program:

1. Delivered a Lecture in Faculty Development Programme on Renewable Energy Systems Organized by Department of Electrical & Electronics Engineering, Sri Sairam Engineering College titled "How Design a Standalone Solar System for your home" held from 22nd July, 2019 to 26th July 2019

2. Handled session in the ISHRAE Organised three day Workshop on "**OVERVIEW OF HVAC & R INDUSTRY"** Organized by Department of Mechanical Engineering, Sri Sairam Engineering College, held from 26th July, 2019 to 29th July 2019

3. Delivered a Lecture in QIS COLLEGE OF ENGINEERING & TECHNOLOGY titled "**Fundamentals of Manufacturing**" on 25.02.2020

4. Delivered a Lecture in Online Student orientation Prorgramme titled "**Electric Vehicles**".

5. Delivered a lecture in webinar on Solar Technology organized by Department of Mechanical Engineering, Sri Sairam Engineering College titled "**DESIGN METHODOLOGY FOR SOLAR SYSTEM**" on 21.06.2020.

6. Delivered a Guest lecture on "**BEST OUT OF WASTE"** fro the FRESHERS AICTE INDUCTION PROGRAMME held from 16.11.2020 to 20.11.2020 at SRM Valliammai Engineering College, Kattankulathur -603 203

7. Delivered a lecture in Awarness Program on "**Electric Vehicles"** organized by Department of Mechanical Engineering, K. Ramakrishnan College of Technology on 30.10.2021.

8. Young Researcher Award 2021 "InSc Awards 2021"

9. Delivered a lecture in "Skill Development Course Training" on "**Electric Vehicles Training"** organized by Department of Mechanical Engineering, QIS College of Engineering and Technology, Ongole on 30.06.2022 to 01.07.2022.

10. Delivered a lecture program on "**Electric Vehicles"** organized by Department of Mechanical Engineering, Sri Sairam College of Engineering, Anekal, Bangalore on 13.06.2022 to 16.06.2022.

Workshops Attended:

1. Workshop on "**DESIGN OF SOLAR PV & THERMAL ENERGY SYSTEMS"** Organized by the Department of Mechanical Engineering, KONGU ENGINEERING COLLEGE, dated on 19.07.2019 & 20.07.2019
2. National Level seminar on "**SOLAR THERMAL EQUIPMENT AND PHASE CHANGE MATERIALS"** on 17th August 2019 at Kongunadu College of Engineering and Technology.

Events organized:

1. Organized the Pre-Virtual Round **ESVC'18** from 6th to 8th October 2017.

2. Organized the Three days Workshop on **SAUR URJA VEHICLE CHAMPIONSHIP-2019 – Virtual Round** on 26.12.2018 to 28.12.2018.

3. Organized Five Days Webinar on "**SOLAR TECHNOLOGY**" from 17.6.2020 to 21.6.2020.

4. Organized Six Days Hands on Training on "**RETROFITTING OF FUEL CAR INTO ELECTRIC CAR**" in collaboration with SKILLSHARK from 22.03.2021 to 27.03.2021.

List of publications in international journals:

1. Suresh Tiwari1, Krishnamohan Reddy Kunduru2, P. Suresh Kumar, N. Narendran, S Aravind, Ramesh Velumayil, **S Siva Chandran**, R. Yokeswaran, **"Optimizing crack toughness in AA6063 aluminum alloy welds: A comparative study of ER5183 and ER5356 fillers in gas metal arc welding"** International Conference on Newer Engineering Concepts and Technology, AIP Conf. Proc. 3270, 020217-1–020217-8; https://doi.org/10.1063/5.0262585

2. Soma Prathibha, **Siva Chandran S**, Kirthiga M, Dhanya K, Abhijay Gopal S, M Manish **"Design and Implementation of Solar Electrification Station for Sustainable Energy Access"** 2024 International Conference on Communication, Computing and Internet of Things (IC3IoT), Chennai, India, 2024, pp., 1-6, https://doi:10.1109/IC3IoT60841.2024.10550242

3. **S. Siva Chandran,** R. Venkatesh, S. Baskar, R. Arivazhagan and T. Maridurai "**Experimental Study of Shell and Tube Heat Exchanger"** Third Virtual International Conference on Materials, Manufacturing and Nanotechnology, AIP Conf. Proc. 2473, 020005-1–020005-8; Published by AIP Publishing. 978-0-7354-4355-6.

4. VS Vigneswaran, P Suresh Kumar, Poongavanam Ganesh Kumar, J Aravind Kumar, **S Siva Chandran**, G Kumaresan, Mathiyazhagan Shanmugam "**Enhancement of passive solar still yield through impregnating water jackets on side walls–A comprehensive study**" Elsevier: Solar Energy, Volume 262, 15 September 2023, 111841, DOI: https://doi.org/10.1016/j.solener.2023.111841

5. M Saravanan, S Arul Selvan, N Radhakrishnan, Seeram Srinivasa Rao, Vipin Sharma, S Madhavarao, **S Siva Chandran** "**Improving the thermal efficiency of a solar water heater by using PCM**" Elsevier: Materials Today: Proceedings DOI:https://doi.org/10.1016/j.matpr.2023.07.233

6. Veeranan Arunprasad, PS Deole, B Kiran Kumar, K Srinivasan, VG Pratheep, Kartikeya Parmar, **S Siva Chandran** "**Thermal regulation of photovoltaic cells using a phase change material**" Elsevier: Materials Today: Proceedings DOI: https://doi.org/10.1016/j.matpr.2023.07.169

7. R. Venkatesh, **S. Siva Chandran,** T. Maridurai, S. Baskar, N. Sivashankar, and R. Arivazhagan "**Magnesium Alloy Machining and its Methodology: A Systematic Review and Analyses"** Third Virtual International Conference on Materials, Manufacturing and Nanotechnology, AIP Conf. Proc. 2473, 020003-1–020003-7; Published by AIP Publishing. 978-0-7354-4355-6.

8. T. Maridurai, R. Arivazhagan, **S. Siva Chandran,** R. Venkatesh and S. Baskar "**Review on Direct Steam Generation using Concentrated Solar Collectors"** Third Virtual International Conference on Materials, Manufacturing and Nanotechnology, AIP Conf. Proc. 2473, 020008-1–020008-4; Published by AIP Publishing. 978-0-7354-4355-6.

9. S. Baskar, T. Maridurai, R. Arivazhagan, **S. Siva Chandran and** R. Venkatesh "**Thermal Management of Solar Thermoelectric Power Generation"** Third Virtual International Conference on Materials, Manufacturing and Nanotechnology, AIP Conf. Proc. 2473, 020010-1–020010-6; Published by AIP Publishing. 978-0-7354-4355-6.

10. R. Arivazhagan, S. Baskar**,** R. Venkatesh, T. Maridurai and **S. SivaChandran** "**Performance Analysis of Steam Generators in Thermal Power Plant"** Third Virtual International Conference on Materials, Manufacturing and Nanotechnology, AIP Conf. Proc. 2473, 020006-1–020006-5; Published by AIP Publishing. 978-0-7354-4355-6.

11. M. Siva Ramkumar Saravanan A, L. Chitra, **S. Siva Chandran**, B. Sai Aravind, J. Naveen Kumar, S. Jayaprakash "**Distinguished DC-DC Converter for an Electric Vehicle**" IEEE: International Conference on Computing Methodologies and Communication (ICCMC)

12. R Yokeswaran, **S Siva Chandran**, M Loganathan, B Veluchamy "**Influence of different insulation materials for effective cooling performance**" Elsevier: Materials Today: Proceedings, Volume 69, Part 3, 2022, Pages 967-973, DOI: https://doi.org/10.1016/j.matpr.2022.07.417

13. J. Deepa, S. Suganthi, N. Vasudevan, **S. Siva Chandran** "**Substrate material characteristics analysis of microstrip patch antenna on EBG layer for medical applications**" Elsevier: Materials Today: Proceedings, Volume 69, Part 3, 2022, Pages 1509-1514, DOI: https://doi.org/10.1016/j.matpr.2022.10.240

14. N Shivaanivarsha, **Siva Chandran S**, D Vimal Selvaraj, "**Desing Of High Energy Efficient Eco Friendly Low Cost Hybrid Auto**" IEEE: 2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)

15. J. Deepa, S. Suganthi, N. Vasudevan, **S. Siva Chandran** "**Substrate integrated waveguide antenna with dual rectangular slots for material characterization for ISM band applications**" Elsevier: Materials Today: Proceedings, Volume 69, Part 3, 2022, Pages 1493-1497, DOI: https://doi.org/10.1016/j.matpr.2022.10.160

16. S. Sandeep Kumar, D. Ramya, **S. Siva Chandran**, M. Naveenkumar, T. Vignesh, V.G. Pratheep "**Characteristics of a solar-driven phase change material with sodium acetate trihydrate and Ti2O3 particle composite**" Elsevier: Materials Today: Proceedings, Volume 69, Part 3, 2022, Pages 1470-1477, https://doi.org/10.1016/j.matpr.2022.10.032

17. S. Jayaprakash, **S. Siva Chandran**, T. Sathish, Bhiksha Gugulothu, R. Ramesh, M. Sudhakar, and Ram Subbiah "**Effect of Tool Profile Influence in Dissimilar Friction Stir Welding of Aluminium Alloys (AA5083 and AA7068)**" Hindawi: Advances in Materials Science and Engineering, Volume 2021, Article ID: 7387296, 7 pages.

18. **S. Siva Chandran**, A. Selvaramkumar, C.G. Sanjhai, Kothamasu Anuroop, G. Karthikeyan, S.S. Mohamed Shabbeer Zayed "**Experimental investigation on three combinations of magnesium oxide and silicon carbide used composites of Al6463 aluminium alloy**" Materials Today:Volume 37, Part 2, 2021, Pages 1491 – 1494

19. P.Anbarasu, R.Yokeswaran, A.Godwin Antony, **S. Siva Chandran** "**Investigation of filler material influence on hardness of TIG welded joints**" Materials Today:Volume 21, Part 1, 2020, Pages 964 – 967

20. A. Parthiban, T. Sathish, **S. Siva Chandran**, R. Venkatesh, V. Vijayan "**Optimization of CO_2 Laser Cutting Parameters on Austenite Stainless Steel Using Grey Relational Analysis**" International Journal of Mechanical Engineering and Technology (IJMET): Volume 10, Issue 01, Pages: 984 – 992

21. R. Venkatesh, V. Vijayan, A. Parthiban, T. Sathish, **S. Siva Chandran** "**Comparison of Different Tool Path in Pocket Milling**" International Journal of Mechanical Engineering and Technology (IJMET): Volume 9, Issue 12, Pages: 922 – 927

22. V. Vijayan, A. Parthiban, T. Sathish, **S. Siva Chandran**, R. Venkatesh "**Performance Analysis in End Milling Operation**" International Journal of Mechanical Engineering and Technology (IJMET): Volume 9, Issue 11, Pages: 2263 – 2271

23. Vijayan Venkatraman, **Siva Chandran Sugumar**, Saravanan Sekar & Sivakumar Viswanathan "**Environmental Effect of CI engine using microalgae biofuel with nano – additives**" Taylor & Francis: ISSN: 1556 – 7036 (Print) 1556 – 7230(Online)

List of Patents:

1. Published a Patent titled "**GEARED ELECTRIC BIKE**" Application No. 202041049411 dated on 12.11.2020.

2. Published a Patent titled "**STRAIGHT – BLADE WIND TURBINE SYSTEM USING A VERTICAL AXIS**" Application No. 202041049416 dated on 12.11.2020.

3. Published a Patent titled "**SYSTEM AND METHOD OF BIOGAS PRODUCTION-A HOUSEHOLD BIOGAS DIGESTERS**" Application No. 202141031206 A dated on 16.07.2021.

4. Published a Patent titled "**FLOATING BOT FOR MONITORING HUMAN EXISTENCE IN HYDROMETEOROLOGICAL DISASTERS**" Application No. 202141054392 A dated on 10.12.2021.

5. Published a Patent titled "**A SYSTEM AND METHOD BASED ON NEURAL NETWORK MODEL OF ENERGY CEMAND IN ELECTRIC VEHICLE**" Application No. 202241049865 A dated on 31.08.2022.

6. Published a Patent titled "**AN IMPROVED AQUEOUS LITHIUM ION BATTERY WITH IO CONNECTIVITY**" Application No. 202241049505 A dated on 30.08.2022.

7. Published a Patent titled "**AN IOT BASED INTELLIGENT CHARGING SYSTEM FOR RECHARGING BATTERIES OF ELECTRIC VEHICLE**" Application No. 202241050741 A dated on 09.06.2022.

8. Published a Patent titled "**A METHOD OF REGENERATING ELECTRICITY USING REINFORCED CARBON NANO COMPOSITE IN BICYCLES**" Application No. 202311014729 A dated on 05.03.2023.

9. Published a Patent titled "**AUMATED MECHANICAL FLOOR CLEANING BRUSH WITH AI AND ROBOTICS FOR EFFECIENT AND PERSONALIZED CLEANING"** Application No. 202441092748 A dated on 27.11.2024.

10. Published a Patent titled "**FABRICATION OF SOLAR DRYER WITH PCM STORAGE FOR AGRICULTURAL PRODUCT PRESERVATION"** Application No. 202441093380 A dated on 28.11.2024.

11. Published a Patent titled "**SOLAR DRYER WITH IOT-BASED MONITORING SYSTEM FOR ENHANCED EFFICIENCY"** Application No. 202441095661 A dated on 04.12.2024.

12. Published a Patent titled **"ADDITIVE MANUFACTURING SYSTEM AND METHOD FOR MULTI-MATERIAL COMPOSITE STRUCTURE FABRICATION"** Application No. 202541031304 A dated on 18.04.2025.

Consultancy Work:

1. Conversion of pedal powered bicycle into Electric Bicycle.
2. Mechanicaly operated gate.
3. Mobile Operated Automatic Screen opens.

List of Courses Completed:

NPTEL:

1. Eight Week Course on "**Engineering Thermodynamics**" –Feb –Mar 2018

2. Four Week Course on "**Laws of Thermodynamics**" – Elite – Aug – Sep 2018
3. Eight Week Course on "**Refrigeration and Air-Conditioning**" –Aug –Sep 2018
4. Eight Week Course on "**Renewable Energy Engineering: Solar, Wind and Biomass Energy systems**" – Jan – Mar 2021.
5. Twelve week Course on "**Electric Vehicles and Renewable Energy**" – Jul – Oct 2021.
6. Four Week Course on "**Teaching and Learning in Engineering (TALE)**" – Elite & Silver – Jan – Feb 2022.
7. Four Week Course on "**Electric Vehicles – Part 1**" – Elite –Feb – Mar 2022.
8. Twelve week Course on "**Non-conventional energy Resources**" – Elite – Jan – Apr 2023.
9. Twelve week Course on "**Solar Energy Engineering and Technology**" – Elite – Silver – Topper 1% – Jul – Oct 2023.
10. Twelve week Course on "**Physics of Renewable Energy Systems**" – Elite – Silver – Jul – Oct 2023.
11. Twelve week Course on "**Design of Photovoltaic Systems**" – Jul – Oct 2023.
12. Eight Week Course on "**Solar Photovoltaics: Principles, Technologies & Materials**" – Jan – Mar 2024.
13. Eight Week Course on "**EV - Vehicle Dynamics and Electric Motor Drives**" Elite – Jan – Mar 2024.
14. Twelve Week Course on "**Heat Transfer**" Elite - Jan – Mar 2024.
15. Eight Week Course on "**Waste to Energy Conversion**" Elite – Jan – Mar 2024.
16. Twelve Week Course on "**Environmental Quality Monitoring & Analysis**" Jan – Mar 2024.
17. Twelve Week Course on "**Biomass Conversion and Biorefinery**" Elite - Jan – Mar 2024.
18. Four Week Course on "**Selection of Nanomaterials for Energy Harvesting and Storage Application**" Elite - Jul-Aug 2024.
19. Eight Week Course on "**Technologies for Clean and Renewable Energy Production**" Silver – Topper - Jul-Sep 2024
20. Twelve Week Course on "**Basic Environmental Engineering and Pollution Abatement**" Silver – Jul-Oct 2024

21. Twelve Week Course on "**Sustainable Energy Technology**" Elite – Jul-Oct 2024.
22. Twelve Week Course on "**Energy Conservation and Waste Heat Recovery**" – Jul-Oct 2024.
23. Four Week Course on "**Inspection And Quality Control In Manufacturing**" Silver – Jan-Feb 2025.
24. Twelve Week Course on "**Renewable Energy Engineering: Solar, Wind And Biomass Energy Systems**" Elite – Jan-Apr 2025
25. Twelve Week Course on "**Environmental Quality Monitoring & Analysis**" - Jan-Apr 2025
26. Twelve Week Course on "**Thermal Engineering: Basic and Applied**" Silver – Topper - Jan-Apr 2025.

NPTEL STAR:

1. NPTEL BELIEVERS - Jan-Apr 2024
2. NPTEL ENTHUSIASTS - Jan-Apr 2024
3. NPTEL BELIEVERS - Jul-Dec 2024
4. NPTEL MOTIVATED LEARNERS - Jul-Dec 2024
5. NPTEL EVANGELISTS - Jul-Dec 2024
6. NPTEL DISCIPLINE STARS - Jul-Dec 2024
7. NPTEL BELIEVERS - Jan-Apr 2025
8. NPTEL DOMAIN SCHOLARS - Jan-Apr 2025

Future Skills:

1. Introduction to Robotic Process Automation by Simplilearn
2. Introduction to Product Management by Simplilearn

UDEMY Courses:

1. Maths for Engineering
2. Introduction to Lithium-iron Battery Management
3. Mass Transfer Diffusion & Convection

4. Engineering Thermodynamics

Coursera Courses Completed:

1. Solar Energy Basics
2. Air Pollution - a Global Threat to our Health
3. Initiating and Planning Projects
4. Renewable Energy and Green Building Entrepreneurship
5. Mechanics of Materials I: Fundamentals of Stress & Strain and Axial Loading
6. Municipal Solid Waste Management in Developing Countries
7. Create Informative Presentations with Google Slides
8. Electric Power Systems
9. Degital Manufacturing & Design
10. The Sustainable Development Goals – A global, transdisciplinary vision for the future.