


## SRI SAI RAM ENGINEERING COLLEGE

### DEPARTMENT OF MECHANICAL ENGINEERING

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| Name: Prabhu V                                     |    |
| Designation:                                       | Assistant Professor  |
| Qualification:                                     | M.E, (Ph.D)  |
| Area of Specialization:                            | Advanced Manufacturing, Friction Stir Processing   |
| Experience:  | Teaching- 14 Years   |
|  | Industry: -  |
| Number of Workshops/ Conferences/<br>FDP Attended: | Workshop- 12<br>FDP-<br>National/Int. Conference- 02   |
| Publication:                                       | Web of science -1<br>Scopus - 3<br>UGC - 8   |
| General:   | ✓ 4 - NPTEL course completed.<br>✓ NITTTR all 8 modules completed<br>✓ 2 - Online courses completed in UDEMY.<br>✓ 28 - Online courses completed in CORSERA. |

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| Staff Achievement | <ul style="list-style-type: none"> <li>✓ Record holder in Asian and Indian Book of records towards Maximum authors contributing for a book.</li> <li>✓ Received “Award of Excellence ” from DDG NCC of TN,P&amp;AN directorate.</li> <li>✓ Received “Award of Excellence ” for best NCC officer.</li> <li>✓ Produced Academic excellence award for Welding technology, foundry technology, Computer integrated manufacturing, Computer aided design, Basic machining Processes.</li> </ul> |
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### PROFESSIONAL EXPERIENCE:

| College/Organization                    | Designation     | Period From - To    | Total period | Nature of work            |
|---|-----------------|---------------------|--------------|---------------------------|
| Sri Sairam Engineering College, Chennai | Assistant Prof. | May’13 to Till date | 8.5 Years    | Teaching                  |
| Chennai institute of Technology         | Assistant Prof. | May’12 to May’13    | 1 Years      | Cost work out             |
| Pee Vee Precisions Pvt Ltd              | Diploma Trainee | June’11 to April’11 | 1 Years      | Tapping Machine Assembler |

### PATENTS:

| Applicant / Inventor   | Title  | Patent Adoption | Filed/ Published / Granted | Patent Number  |
|--|--|-----------------|----------------------------|----------------|
| <b>Applicant - M. Sudhakar,</b><br>Department of Mechanical Engineering, Sri Sairam Engineering College. | Hybrid Solar Cooking System with Solar Thermal and Photovoltaics to Generate Electrical Energy for House hold applications | 19/11/2019      | Published                  | 201941047107 A |
| <b>Inventor - M. Sudhakar,</b><br>Department of Mechanical Engineering, Sri Sairam Engineering College.  | Lemon Grass Oil Composition-Diesel Blend as Alternative Fuel for Diesel Engine   | 06/12/2019      | Published                  | 201941048053 A |

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| <b>Applicant - M. Sudhakar,</b><br>Department of Mechanical Engineering, Sri Sairam Engineering College. | Hybrid Pentagonal Pyramid Solar Still Integrated with PV/T system                           | 27/11/2020 | Published | 202041049408 A |
| <b>Applicant - M. Sudhakar,</b><br>Department of Mechanical Engineering, Sri Sairam Engineering College. | Lantern type Wind Turbine   | 27/11/2020 | Published | 202041049414 A |
| <b>Applicant - M. Sudhakar,</b><br>Department of Mechanical Engineering, Sri Sairam Engineering College  | Experimental Investigation on Hybrid Double Slope Solar Still Integrated with PV/T System   | 25/11/2021 | Published | 202141054486 A |
| <b>Applicant - M. Sudhakar,</b><br>Department of Mechanical Engineering, Sri Sairam Engineering College  | Experimental Investigation on Hybrid Square Pyramid Solar Still Integrated with PV/T System | 10/12/2021 | Published | 202141054492 A |

#### **PAPERS PUBLISHED IN THE NATIONAL CONFERENCES:**

1. **M.Sudhakar**, Kalidhasa Murugavel presented a paper entitled “Performance analysis of parabolic trough concentrating photovoltaic thermal system” in the MNRE Sponsored National conference on Research issues in Renewable energy and Conservation (ELCON’13) on 21<sup>st</sup> March 2013 conducted by National Engineering College, Kovilpatti.

#### **PAPERS PUBLISHED IN THE INTERNATIONAL CONFERENCES:**

1. **M. Sudhakar** presented a paper entitled study of “Design and analysis of shell and tube heat exchanger” in the National conference on Advancements in mechanical, mechatronics and management systems (AIMMMS’12) on 5<sup>th</sup> April 2012 conducted by Sri Sairam engineering college, Chennai.

#### **INTERNATIONAL CONFERENCES ATTENDED:**

1. Participated in 2<sup>nd</sup> international conference on “Emerging Trends in Energy and Environment” (ICETEE’14) on January 9<sup>th</sup> & 10<sup>th</sup>, 2014 conducted by Sri Sairam engineering college, Chennai.
2. Participated in 4<sup>th</sup> National Conference on “Recent Innovation in Mechanical Engineering” (NCRIME-2K17) under TEQIP – II S.C-1.1 on 21<sup>st</sup> January, 2017 held at Malla Reddy Engineering College, Secunderabad.

#### **PAPERS PUBLISHED IN THE INTERNATIONAL JOURNALS:**

1. S. Raviraja ., K. Seethalakshmi ., Sumit Kushwaha ., Vishnu Priya P M ., Kallakunta Ravi Kumar ., Bijesh Dhyani ., V. Prabhu ., Proceedings of the 2nd International Conference on Applied Artificial Intelligence and Computing, ICAAIC 2023, Volume , Year 2023, Pages 984-988 2. Materials Today: Proceedings, Year 2023
2. **M. Sudhakar\***, Rajendra Prasad A, A. Ravinthiran, Priyadarshi Dutt, M.C. Anand Chakaravarthi published a paper entitled “Performance Improvement of Trough Concentrating Photovoltaic Thermal System: A Review” in the journal Materials Today: Proceedings 16 (2019) 647–652. <https://doi.org/10.1016/j.matpr.2019.05.141>
3. T. Naresh Kumar, A.K.Saravanan, S. Shylin H. Jose, L. Ravikumar, **M. Sudhakar** published a paper entitled “Reinforcing Adhesive Plastic-Coated Grins through FRP Compounds” in the International Journal of Engineering and Advanced Technology, Volume-9 Issue-1, October 2019. <https://doi.org/10.35940/ijeat.A1516.109119>
4. D. Ramesh, V. R. Muruganantham, K. Arun Balasubramanian, A. Thirumoorthy, **M. Sudhakar** published a paper entitled “Experimental Research on the Tribological - Mechanical Properties of Al-SiC composites and EN31 Steel” in the International Journal of Engineering and Advanced Technology, Volume-9 Issue-2, December, 2019. <https://doi.org/10.35940/ijeat.B3897.129219>
5. A.K.Saravanan, A.Rajendra Prasad, D.Muruganandam, G.Saravanan, S.Vivekanandan, **M.Sudhakar** published a paper entitled “Study on natural fiber composites of jute, pine apple and banana compositions percentage of weight basis for thermal resistance and thermal conductivity” in the journal Materials Today: Proceedings, Volume 37, Part 2, 2021, Pages 147-151. <https://doi.org/10.1016/j.matpr.2020.04.662>
6. G.Puthilibai, DineshKumar, Singaravelu, C.Dinesh, S.Chitradevi, **M.Sudhakar**, M. Keerthika published a paper entitled “Experimental investigation regarding emissivity of black nickel coated on aluminium surface” in the journal Materials Today: Proceedings Volume 37, Part 2, 2021, Pages 248-251. <https://doi.org/10.1016/j.matpr.2020.05.149>
7. D.Logendran, K.Gurusami, M.C.Anand Chakaravarthi, G.Puthilibai, M.Suresh, M.Sudhakar, “Experimental research on glass fibres / caustic soda treated banana fibers hybrid composite” in the journal Materials Today: Proceedings Volume 33, Part 7, 2020, Pages 4408-4411. <https://doi.org/10.1016/j.matpr.2020.07.662>
8. D. Chandramohan, T. Sathish, S. Dinesh Kumar, **M. Sudhakar**, published a paper entitled, “Mechanical and thermal properties of jute/aloevera hybrid natural fiber

reinforced composites” in the journal AIP Conference Proceedings 2283, 020084 (2020); <https://doi.org/10.1063/5.002497>

9. Muruganandam, D., Jayapriya, J., Suresh, M., Puthilibai, G., **Sudhakar, M.**, Simple study on behavior of composites with augmentation of Silicon carbide on Al6061 aluminium alloy based on mechanical properties, Materials Today: Proceedings this link is disabled, 2020, 33, pp. 4573–4577. <https://doi.org/10.1016/j.matpr.2020.08.189>
10. A. Rajendra Prasad, Ravishankar Sathyamurthy , **M. Sudhakar**, et al, published a paper entitled “Effect of Design Parameters on Fresh Water Produced from Triangular Basin and Conventional Basin Solar Still” in the journal International Journal of Photoenergy” Volume 2021, Article ID 6619138, <https://doi.org/10.1155/2021/6619138>.
11. S. Jayaprakash, S. Siva Chandran, T. Sathish , Bhiksha Gugulothu, R. Ramesh, **M.Sudhakar**, et al, published a paper entitled “Effect of Tool Profile Influence in Dissimilar Friction Stir Welding of Aluminium Alloys (AA5083 and AA7068)” in the journal, Advances in Materials Science and Engineering, Volume 2021, Article ID 7387296, 7 pages, <https://doi.org/10.1155/2021/7387296>.
12. Ravishankar Sathyamurthy, D. Mageshbabu, B. Madhu, A. Muthu Manokar, A. Rajendra Prasad, **M. Sudhakar** published a paper entitled “Influence of fins on the absorber plate of tubular solar still- An experimental study” in the journal Materials Today: Proceedings Volume 46, Part 9, 2021, Pages 3270-3274. <https://doi.org/10.1016/j.matpr.2020.11.355>
13. T Vennila, Raviteja Surakasi, KS Raghuram, G Ravi, S Madhavarao, Chikkappa Udagani, **M Sudhakar\***, published a paper entitled “Investigation on tensile behaviour of Al/Si<sub>3</sub>N<sub>4</sub>/sugarcane ash particles reinforced FSP composites” in the journal Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2021.11.477>
14. J.Karpagam, Chandrashekhar K.Patil, K.V.Pradeep Kumar, AnkurDutt Sharma, RaviKumar Goyal, MotiLal Rinawa, **M.Sudhakar\***, published a paper entitled “Fabrication of Al-Zr -Mg-Ni matrix composite with TiC reinforcement by multi-pass recursive friction stir processing and its characterization” in the journal Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2022.01.239>
15. A. Rajendra Prasad, Mohammed El Hadi Attia, **M. Sudhakar**, Ravishankar Sathyamurthy, A. Muthu Manokar, published a paper entitled “Performance improvement of solar still using phosphate granules as energy storing materials: an experimental study” in the journal, Desalination and Water Treatment, Accepted 6 January 2022, [doi:10.5004/dwt.2022.28180](https://doi.org/10.5004/dwt.2022.28180)

16. Sharun V, Rajasekaran M, Suresh Kumar S, Vikas Tripathi, Rajneesh Sharma, G. Puthilibai, M. Sudhakar, Kassu Negash, published a paper entitled “Developments in Protection Coating Techniques for Steel” in the journal, Advances in Materials Science and Engineering, Accepted for Publication.

#### **REVIEWER FOR INTERNATIONAL JOURNALS:**

1. Scientific Irania - SCOPUS

#### **SHORT TERM COURSE COMPLETED:**

1. Successfully completed 8 weeks NPTEL course on topic “Waste to Energy Conversion” held between February – March 2018.
2. Successfully completed 8 weeks NPTEL course on topic “Introduction to Research” held between February – March 2019.
3. Successfully completed 4 weeks NPTEL course on topic “Introduction to Professional Scientific Communication” held between January – February 2020.
4. Successfully completed NITTTR, all 8 modules Course held on September 2021.

#### **FACULTY DEVELOPEMNT PROGRAMS ATTENDED:**

1. Attended 5 days online FDP on “ Recent trends and adencements in Manufacturing Engineering” organized by Department of Mechanical Engineering, at Sri Sairam Engineering College, Chennai March 2024
2. Attended 5 days online FDP on “ Recent Adencements in Materials and Manufacturing” organized by Department of Mechanical Engineering, at Sri Sairam Engineering College, Chennai Feb 2024
3. Attended 5 days online FDP on “ Intellectual Property Rights and Patents” organized by Department of Information Technilogy ,at M.G.R Educational and Research Institute, Chennai. May 2024

#### **Industry Training :**

1. Completed 6 months training course in 3D printing and Manucaturing at PETC chennai.
2. Completed industrial internship at “High Precision Engineering” on May 2024 for injection moulding
3. Completed industrial training at “ Raini Industries India Pvt. Ltd. on May 2023

#### **MEMBERSHIP IN PROFESSIONAL SOCIETIES:**

1. Life member in “The Indian Society for Technical Education (ISTE)”.

2. Senior Member in “Institute of Electrical and Electronics Engineers (IEEE)”.