


# SRIRAM ENGINEERING COLLEGE

Perumalpattu, Veppampattu (RS), Chennai 602024 Tamil Nadu  
(A Unit of Sriram Educational Trust)  
(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)

## DEPARTMENT - MECHANICAL ENGINEERING

### GENERAL INFORMATION

Name of the Faculty Member	Dr.G.SUGANYA	
Present Designation	School Head & Associate Professor	
Educational Qualification	B.E,M.E,Ph.D	
Anna University ID Number	1126083	
AICTE ID Number	1- 451578795	
Total Experience	22 Years	
Date of Birth	03.03.1981	
Date of Joining	18.09.2006	
Area of Specialization	Manufacturing	

### PARTICULARS OF EDUCATIONAL QUALIFICATION

Degree	Subject	University / Board	Year of Passing
Ph.D.,	Mechanical Engineering	St.Peter's	Jan 2020
PG	Computer Integrated Manufacturing	Anna	April 2006
UG	Production Engineering	Madras	April 2002

### RESEARCH TITLES

Ph.D.,	Experimental Investigation and Analysis of Compact Phase Change material Filled Thin Tube Latent Heat Solar Water Heater
PG.	Adaptive head light control system using fuzzy logic
UG	Design of punch and die

### ACADEMIC & INSTITUTIONAL RESPONSIBILITIES

School Head of Mechanical Engineering
Academic Coordinator
Women Empowerment Cell Convener

### PATENT DETAILS

1. Strategies for a home charging system for Electric Vehicles
2. A research on planning and accident prevention system for surface –vehicles for improving safety and efficiency.

## BOOK CHAPTER PUBLICATIONS

1.Engineering materials and metallurgy ,Quill tech publications ISBN 978-93-6786033-5

## JOURNAL PUBLICATIONS

1. Investigative Research of Compact PCM Filled Thin Tube Latent Heat Solar Water Heater International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10 No.71 (2015).
- 2.Experimental Studies on Performance of Latent Heat Thermal Energy Storage Unit Integrated with Solar Water Heater’ ‘International Journal of Chemical Sciences. 14(2), 2016, 1165-1171 ISSN 0972-768X.
- 3.Investigation and Analysis of Compact PCM Filled Thin Tube Latent Heat Solar Water Heater”, International Journal of Taga, Vol.14, pp. 2934- 2944, ISSN:1748-0345 (Online) 2018.
- 4.Analysis Of Friction Stir Welding Between Dissimilar Materials Using Bobin Tool International Journal Of Scientific & Technology Research VOLUME 8, ISSUE 12, December 2019
- 5.Optimization Of Quality Enhancement Of CNC Machining Process By Using Neural Networks , International Journal of Trendy Research in Engineering and Technology Volume 3 Issue 4 August 2019 ISSN NO 2582-0958
- 6.Analysis of Latent Heat Thermal Energy Storage System Using Phase Change Material SSRG International Journal of Mechanical Engineering Volume 8 Issue 3, 5-10, March 2021 ISSN: 2348 – 8360 doi:10.14445/23488360/IJME-V8I3P102
- 7.Evaluation of Mechanical Properties of Bamboo/Epoxy Modified with Nano clay Composites SSRG International Journal of Mechanical Engineering Volume 8 Issue 3, 11- 15, March 2021 ISSN: 2348 – 8360 /doi:10.14445/23488360/IJME-V8I3P103
- 8.Mechanical, thermal, and fatigue behavior of aloe vera fiber/pistachio shell powder toughened epoxy resin composite” Journal of bio mass conversion and bio refinery. Springer(SCIE Indexed) (Annexure-I)May 2022Biomass Conversion and Biorefinery DOI:10.1007/s13399-022-02787-5.
- 9.Mechanical, Dielectric and Thermal Stability of Silicon Oxy nitride Nano particle Dispersed Tamarind Fiber-Reinforced Epoxy Bio-composite. (Annexure-I) Silicon <https://doi.org/10.1007/s12633-023-02320-x>.
- 10.Characterization of annealed-silane modified barley husk bio silica and garment waste cotton microfiber vinyl ester composite (Annexure-I) journal of vinyl and additive technology.14 February2024 <https://doi.org/10.1002/vnl.22095>
- 11.Sustainable product design: strategies for minimizing environmental impact and fostering circular economy practices |ICNKAI-2K25|Conference Proceeding| <https://secp.prabodhanamfoundation.org>.
- 12.Conveyor belt system with auto sorting based on size/ weight|ICNKAI-2K25|Conference Proceeding| <https://secp.prabodhanamfoundation.org>.
- 13.Experimental study on a compact pcm-filled thin tube for latent heat solar water heating |ICNKAI-2K25|Conference Proceeding| <https://secp.prabodhanamfoundation.org>.

## Papers Presented In Conferences / Symposiums

- 1.Sustainable product design: strategies for minimizing environmental impact and fostering circular economy practices |ICNKAI-2K25|Conference Proceeding
- 2.Conveyor belt system with auto sorting based on size/ weight|ICNKAI-2K25|Conference Proceeding|
- 3.Experimental study on a compact pcm-filled thin tube for latent heat solar water heating |ICNKAI-2K25|Conference Proceeding
- 4.International fourth conference of Advances in Industrial Engineering Applications Anna university 02.06.22-04.06.22
- 5.Analysis of latent heat thermal energy storage system using phase change material ICIET21 DMI College of Engineering 09.04.2021

6.Studies on the fabrication of lightweight materials based on MgO for biomedical applications 25.03.2022 and 26.03.2022 at Chennai institute of technology
7.Analysis of turbulence in stir casting furnace with “3 blade rotor 10.03.2020 Sriram engineering college
8. Design and fabrication of cylindrical cam using composite materials 6.3.2020. P.T.Lee Chengalvaraya Naicker Polytechnic College
9.Performance of compact phase change material filled thin tube latent heat solar water heater national conference on Fascinating advancements in mechanical engineering (FAME 2019).
10.Investigation on thermal behavior of hydrotech fuel saver in two-wheeler JNN Institute of Engineering 18 May 2019
Analysis of phase change material using CFD National conference on power and energy systems (NCPES-2K19).
11.A review paper on friction stir spot welding JNN Institute of Engineering 18 May 2019
12.Study of PCM using solar water system National conference on power and energy systems (NCPES-2K18).
13.Analysis and investigation on mechanical behavior of PCM during phase transformation on national conference on applications of chemical graph, fluid dynamics and queuing theory and technology.
14.Design and development of solar latent heat storage of phase change material national conference on (RTCEE-2018).
15.Review on Experimental investigation of heat transfer enhancement in thermal energy storage system national conference on power and energy systems 2018.
16.Design and Fabrication of Heat Enhanced Solar Water Heater National Conference on Advances in Mechanical Engineering (AME 2017), p. 61, 2017.
17.Experimental Investigation of Solar Water Heating System Using Phase Change Material (PCM)-Review International Conference on Recent Trends in Science, Engineering and Management(ICRTSEM-2017), pp. 140, 2017.
18.Study and Investigation of Phase Change Material Using Solar Water Heating System National Conference on Fascinating Advancements in Mechanical Engineering (FAME2017).
19.Fabrication of electronic fuel injection in spark ignition engine on National Conference on Fascinating Advancements in Mechanical Engineering (FAME2017).
20.Advances in phase change material using solar water heating system national conference on recent advances in Nano science and Nano technology(RAN2017)..
21.Experimental investigation of compact PCM using solar system National Conference on Advances in Mechanical Engineering (AME 2017).
22.Review on thermal energy storage with phase change material on national conference on Recent Innovations in Applied Chemistry and Advanced Materials NCRIACAM17
23.Thermal response in thermal energy storage material using copper tubes national conference on NCETME2017
24.Enhancement of Thermal Energy Storage Performance Using Paraffin of a Conventional Solar Water-Heating System National Conference on Fascinating Advancements in Mechanical Engineering (FAME 2016) pp. 47–50, 2016
25.literature review and objective of latent heat thermal energy storage system with solar water heater national conference on CIAMI-2016
26.Investigation on Mechanical Behaviour of PCM during Phase Transformation Integrated with Solar Water Heater” International Conference on Current Research in Engineering Science and Technology (ICCREST-2016) pp. 142–146, 2016
27.Experimental Studies on performance of latent heat thermal energy storage system International conference on recent advances in applied sciences ICRAAS2016
28.Investigation on Mechanical Behaviour of PCM during Phase Transformation Integrated with Solar Water Heater” International Conference on Current Research in Engineering Science and Technology (ICCREST-2016) pp. 142–146, 2016.
29.Enhancement of thermal energy storage performance using paraffin of a solar water heating system national conference on FAME2016.

30. Investigation on mechanical behaviour of PCM during phase transformation national conference on DAME2016
Study of thermal energy storage in solar system using phase change material national conference on DAME2016
31. Investigation of Compact PCM Filled Thin Tube Latent Heat Solar Water Heater National Conference on Fascinating Advancements in Mechanical Engineering (FAME2015).
32. Experimental investigation of compact pcm filled tube solar water heater on international conference on ICEM2014
33. Analysis of Gas Turbine blade using Finite Element Method Conference Gojan School of Business & Technology, Nallur 10.04.2013
34. Analyzing and Increasing the Efficiency of Tool life using TiC Coating Conference Gojan School of Business & Technology, Nallur 10.04.2013
35. Synthesis and characterization of Nano Carbon composite Material Conference Sriram Engineering College 25.08.2011 & 26.08.2011
36. Renewable sources of Energy” in the National conference on “Alternate Energy Sources and Applications” held on 22-04-2011 & 23-04-2011 at Sri ram Engineering College, Perumalpattu, Chennai-602024
37. Alternative Energy Resources and APPLICATIONS” in the National conference on “held 22-04-2011 at Sri Ram Engineering College, Perumalpattu, Chennai- 602024
38. Applications of nano technology in Robotics” in the National conference on “Nanotechnology in Engineering” held 26-08-2011 at Sri Ram Engineering College, Perumalpattu, Chennai-602024
39. Reduction of Emission in Boiler Conference Sriram Engineering College 23.07.2010
40. Alternate Energy Resources and Application Conference Sriram Engineering College 22.04.2010 & 23.04.2010
41. Reduction of Ghg Emission In Boiler Industries in the National conference on “held 23.7.2010 at Sri Ram Engineering College, Perumalpattu, Chennai-602024
42. Presented a paper titled “Telematics and connected vehicles” in the National conference on “Current Trends in Telematics” held on 30-10-2009 at Sri ram Engineering College, Perumalpattu, Chennai-602024
43. Current Trends in Telematics. Conference Sriram Engineering College 28.10.2009 to 30.10.2009
44. Telematics and connected vehicles” in the National conference on “Current Trends in Telematics” held on 30-10-2009 at Sri ram Engineering College, Perumalpattu, Chennai-602024
45. Value Analysis of Waste Management International Conference Satyabhama University, Kelambakkam. 14.03.2006

## CONFERENCES, SEMINARS AND WORKSHOPS ATTENDED

1. Workshop on Emerging Trends in Supply Chain Management Sri Venkateswara College of Engineering, 18-19 September 2009
2. Workshop on Synthesis and characterization of smart materials Sri ram Engineering College 25.08.10
3. Workshop on Composite Materials in Research and Industrial Sriram Engineering College, 28.04.2010 & 29.04.2010
4. Work Shop Innovative Techniques in Road Safety, Sriram Engineering College, 28.07.2010 29.07.2010
5. Workshop on New Materials and Application Sathyabama University, Kelambakkam. 29.09.2010
6. Workshop on Quantitative Research Techniques for Engineers Researchers. Sriram Engineering College, 29.10.2010
7. Work shop on Patenting Systems in India Vellammal Engineering College, Surapet. 18.11.2011
8..Workshop on CNC training Mtab, 14.04.2013
9..Workshop on Robotics And Automation Chennai Institute Of Technology , 30 .9.2014
10. workshop on Advance manufacturing process applied to vehicle components SA Engineering college, 23.06.2017
11. Workshop on Additive manufacturing Chennai Institute of technology , 13.08.2019 to 14.08.2019
12. Workshop on Extraction of bio fibers and structural components manufacturing using natural composites

St.Peter's institute of higher education, 14.12.2019
13.Workshop on Patent Searching, Drafting and Filing Panimalar Institute of Technology, 29.05.2020 to 02.06.2020
14.Workshop on Hydraulic System KarpagaVinayaga College of Engineering and Technology, 16.05.2020
15.Workshop on Additive & Advanced Manufacturing Technologies Chennai Institute of Technology, 12.10.2020
1.FDP on Recent trends in Automation and IIOT Vel Tech High Tech 18.12.2019 to 24.12.2029
2.FDP on Energy Storage (ATAL) Gandhi Institute of Technology and Management 01.02.2021 to 05.02.2021
3.FDP on Contemporary Development in manufacturing process ,sustainable manufacturing and industrial technologies Pragati Engineering College, 09.06.2021 to 13.06.2021
4.FDP on Recent Trends in Mechatronics and Automation NBN Sinhgad School of Engineering, Pune-411041 30.06.2020 to 04.07.2020
5.FDP on Mechanical Behavior of Advanced Materials and Its Scope for Engineering Applications Sri Venkateswara College of Engineering , 10.06.2020 to 14.06.2020
6.FDP on Robotics Chennai Institute of Technology, 24.08.2020 to 28.08.2020
7.FDP Effective Research Writing using Latex, Pragathi Engineering college, 22.06.2020 to 27.06.2020
8.FDP on Sustainable Industrial Development through Industry 4.0, Chennai Institute of Technology, 15.02.2021 to 20.02.2021
9.FDP on Sustainable Industrial Development through Industry 4.0, Chennai Institute of Technology,
10.FDP on Green Technology and Sustainability Engineering 05.07.21.to 09.07.21
11.FDP on Patent Law For Engineers And Researchers Prathyusha Engineering College 26.07.21 to 30.07.21
12.FDP on The role of Additive Manufacturing in the Era of Industry 4.0" Chennai Institute of Technology 21.06.2021 to 25.06.2021
13.FDP on Innovations in Materials and Manufacturing Processes Vemu Institute of technology 21.06.21 to 25.06.212
14.FDP. on NAAC Assessment and Accreditation frame work of HEIs. Nehru Institute of Engineering and Technology Coimbatore 22.07.21 to 23.07.21
15.FDP on Entrenership ECO system,CED Anna university 2.8.21 to 6.8.2021
16.FDP on National Education Policy 2020(NEP 2020) Nehru Institute of Engineering and Technology 26.8.21 to 27.08.2021
17.FDP on Non Renewable sources NITTTR,27.06.22 TO 01.07.22
1..Seminar on Composite materials Sastha engineering college 20.04.2013
2.Seminar on CAD Vel tech engineering college , 30.04.2014
3.Seminar on Recent Trends in Mechatronics Sriram Engineering College, 01.03.2011
4.Webinar Live 2 days JIT Webinar Series 3.0 Jagannath Institute of Technology 30.03.2021 to 31.03.2021
5.Webinar <i>ON Learning &amp; up skilling during global crisis</i> All India Shri Shivaji Memorial Society's College Of Engineering, 09.10.2021
6.Webinar on New education policy 2020, Psna college of engineering and technology 06.08.21
7.webinar Emerging trends and research perspective of Artificial Intelligence in Electrical Engineering, VIT, Vellore 12.08.2021
8.Webinar on Additive manufacturing :Application, challenges and future scope", Vignan instituteOf technology and science, desh mukhi., 22.5. 2021
9.Webinar Jit webinar series 4.0 design thinking of Engineers, Jagannath institute of technology, 30.4.2021
10.Webinar CVD and PVD coating techniques, Mohamed sathak engineering college. 8 .6.2021
11.international Webinar on Innovations in the field of Education" Nehru institute of Engineering & Technology , 24.07.2021.

12. Webinar series keys to manage time & stress, AISSMS College of Engineering, 24.08.2021
13. International webinar on Techno-economic aspects of Renewable power, Nehru institute of engineering & technology, 25.8.2021
14. Jit webinar series 4.0 on Industrial robotics, Jagannath institute of technology, 30.04.2021
15. Webinar on Digital twin driven smart manufacturing, Sri venkateswara college of engineering, 17.06.2021
16. Webinar on <i>Global gender gap 2021: a review of the world economic forum report</i> NIAS & Centre for research in social sciences and education (cersse), Jain university, 15.4.2021.
17. Webinar on Emotional intelligence, PSNA college of engineering and technology, 17.08.2021
18. Webinar on Recent trends in EV technology, DMI college of engineering, 09.07.2021.
19. Webinar on Robotic operating system, Symbiosis international deemed university, 15.05.21 to 16.05.21
20. Webinar on Innovation and Start-Up, Sri vengateswara college of engineering an technology, 04.06.22

### NPTL, SWAYAM AND OTHER CERTIFICATIONS:

1. AICTE-ISTE Orientation Welding Processes and NDT Evaluation Institute of Technology and Management Universe, Vadodara, Gujarat 24.05.2021 to 29.05.2021
2. Online Training Programme on Computer Integrated Manufacturing NITTTR, 22.11.2021 to 26.11.2021
3. STTP Innovations and Challenges in Industry 4.0 Kallamharanadha reddy Institute of technology, 09.08.21 to 14.08.21
4. STTP Innovative & Inventive Problem Solving, AISSMS COE, Pune, 13.07.21 to 18.07.21
5. STTP “Technology Enablers For Smart Manufacturing Using Industry 4.0” NITTTR Meenakshi Institute of Technology, Bangalore-64, 12.07.21 to 16.07.21
6. STTP Innovative & Inventive Problem Solving” AISSMS COE, Pune during 22.06.21 to 27.06.21
7. STTP Outcome based pedagogical initiatives for effective teaching and learning Matrusr engineering college, 17.05.21 to 22.05.21
8. <b>Performance certificate” for 100 % Results</b> produced from Sri Ram Engineering College, Perumalpattu, and Chennai-602024 In year 2010-2011.
9. Certificate of MERIT” of the department of CIM is awarded college topper II rank (gold medal) in the examination conducted by the Anna university April 2006. at Sri Ram Engineering College Perumalpattu, Chennai-602024
10. <b>To Achieve the Best faculty award in the year of 2017-2018.</b> at Sri Ram Engineering College Perumalpattu, Chennai-602024
11. <b>100%</b> Results produced in CAD/CAM, Mechatronics in Manufacturing Engineering 2015-2016
12. <b>More than 95%</b> results in Design of Transmission Systems and Mechatronics 2016-2017
13. <b>More than 95% results</b> in Basic and mechanical engineering (BCME) 2016-2017
14. Conference chair of Chemical engineering symposium paper presentation 26 <sup>th</sup> September of 2018
15. Conference chair of Automobile engineering symposium paper presentation 8 <sup>th</sup> march September of 2019
16. Online Quiz on “Research Metrics in Scientific Publications” conducted on 13-6-2020 with a score of 73% At MLR institute of technology

### SUPERVISERSHIP (IN NUMBERS)

PG.	06
UG.	30