

**SRI SAIRAM ENGINEERING COLLEGE**  
**DEPARTMENT OF MECHANICAL ENGINEERING**

<b>Name:</b>	R.SANGAMAESWARAN			
<b>Designation:</b>	Associate Professor			
<b>Qualification:</b>	M.E., (Ph.D)			
<b>Area of specialization:</b>	Manufacturing Systems and Management			
<b>Experience:</b>	<b>Industrial Experience</b>		<b>Teaching Experience</b>	
	<b>0.10</b>		<b>15.05</b>	
<b>Number of workshops / FDP attended:</b>	<b>Number of Workshops</b>		<b>Number of FDPs</b>	
	<b>29</b>		<b>33</b>	
<b>Publications:</b>	<b>Conference</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	<b>2</b>	<b>10</b>	<b>-</b>	<b>10</b>
<b>Professional Body Membership</b>	Life member of the Indian Society for Technical Education(ISTE)-LM 96935 Life member of Indian Welding Society(IWS)-L01998 Society of Automotive Engineers (SAE) (10 years)-7240410407 Institute of Electrical and Electronics Engineers(IEEE)-98923086			
<b>Staff Achievements</b>	<b>100 % results in the following subjects</b> Metrology and Measurements Process Planning and Cost Estimation Production Planning and Control Principles of Management Finite Element Analysis Total Quality Management Materials joining Techniques Industrial Safety and Maintenance Engineering <b>Innovation Ambassador MOE's Innovation Cell-AICTE</b> <b>NPTEL Motivated Learner (Jan-Apr 2025)</b>			

## Educational Qualifications:

Category	Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University	% of Marks/ Grades obtained	Class obtained
UG	B.E	Mechanical Engineering	2007	Sudharsan Engineering College	Anna University	70	Firstclass
PG	M.E	Manufacturing System and Management	2010	College of Engineering GuindyCampus	Anna University	7.31/10	First class
Ph.D	Pursuing	Mechanical Engineering		College of Engineering GuindyCampus	Anna University	7.5/10	First class

## Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
B.S. Abdur Rahman crescent University	Assistant Professor	02/08/2010	31/05/2012	1	10	3
Rajiv Gandhi College of Engineering	Assistant Professor	13/06/2012	28/06/2013	1	0	15
Sri VenkateseswaraCollege of Engineering	Assistant Professor	01/07/2013	07/05/2014	0	10	10
Sri SairamInstitute of Technology	Assistant Professor	04/06/2014	31/07/2024	10	1	27
	Associate Professor	01/08/2024	27/08/2025	1	0	27
Sri SairamEngineering College	Associate Professor	28/08/2025	Till Date	0	6	0
<b>Total Experience</b>				<b>15</b>	<b>5</b>	<b>24</b>

## Industrial Experience:

Name of the Organisation	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
Bunge India Pvt Ltd	Engineering Trainee	05/09/2007	30/07/2008	-	10	25

## Journal Publications:

### List of Publications:

1. R.J. Golden Renjith Nimal, M. Chenthil, **R. Sangamaeswaran**, R. Hariharan, G. Esakkimuthu, "An investigation on microstructural evolution and mechanical properties of Zn coating as interlayer on Mg-Al alloys using diffusion bonding", *Materials Today: Proceedings*, Volume 46, Part 9, 2021, Pages 3512-3516, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.11.985>
2. P. Bhagat Singh, **R. Sangamaeswaran**, D. Prem Kumar, B. GnanaDileep, "Effect of basalt powder in AA 5083 composite on microstructure and mechanical properties evolution", *Materials Today: Proceedings*, Volume 46, Part 9, 2021, Pages 3517-3520, ISSN 2214 - 7853, <https://doi.org/10.1016/j.matpr.2020.11.990>
3. **R. Sangamaeswaran**, S. Muhilan, J. Navin, P. Austin Manuelraj, M. Palaniappan, "Mechanical and wear properties of friction stir processing AA 6082-T6/B4C aluminium matrix composites", *Materials Today: Proceedings*, 2023, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2023.05.112>
4. J. Jeswin Arputhabalan, **R. Sangamaeswaran**, M. Rajeshwaran, T. Asaithambi, K. Sivakumar, M. Devi, "Tribology behaviour of aluminium alloy joints by friction stir processing", *Materials Today: Proceedings*, 2023, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2023.05.584>
5. Sabarish, R., Nimal, R. J. G. R., Rajasekar, R., Thirumavalavan, S., **Sangamaeswaran, R.** "Effects of injection pressure on performance and emission characteristics of CI engine using waste cooking oil (WCO) blend", *Journal of Mines, Metals and Fuels*, 2023, 71(9), <https://doi.org/10.18311/jmmf/2023/35460>
6. R. J. G. R. Nimal, **R. Sangamaeswaran**, R. Hariharan, S. R. Divahar, S. S. Selvi and S. Ebinraj, "AI-Driven Material Design and Discovery: Revolutionizing the Development of Novel Alloys and Composites," *2025 IEEE 6th International Conference in Robotics and Manufacturing Automation (ROMA)*, Selangor, Malaysia, 2025, pp. 113-118, [doi: 10.1109/ROMA66616.2025.11155751](https://doi.org/10.1109/ROMA66616.2025.11155751)
7. **Sangamaeswaran, R.**, S., R. B., Mani, N., & Palanikumar, K. (2025) "Multi-Objective Optimization and Corrosion-Mechanical Analysis of AA2014-T6 Alloy in Friction Stir Processing Using Taguchi-Grey Relational Approach". *Materials and Corrosion*, 77(2), 247-267. <https://doi.org/10.1002/maco.70056>
8. Sabarish, R., Hariharan, R., Nimal, R. J. G. R., & **Sangamaeswaran, R.** (2025). "Automotive Multi-Leaf Spring Design and Optimization through FEA". In *Engineering Headway* (Vol. 16, pp. 11-18). Trans Tech Publications Ltd. International Conference on Design, Materials and Metaheuristic Algorithms for Engineering. <https://doi.org/10.4028/p-4qyh6t>
9. Nimal, R.J.G.R., Sabarish, R., Jones, J.M., Jose, D.F.M., **Sangamaeswaran, R.** (2026). Mechanical and Metallurgical Characterization of Polylactic Acid and Natural Fiber Composite Manufactured by Fused Deposition Modeling. In: Sripriyan, K., Balaguru, S., Sachin, S., Paulo Davim, J. (eds) *Innovation and Sustainability for Automation, Aerospace, and Robotics. STAAAR 2024. Lecture Notes in Mechanical Engineering*. Springer, Singapore. [https://doi.org/10.1007/978-981-96-9374-0\\_1](https://doi.org/10.1007/978-981-96-9374-0_1)
10. Renjith Nimal, R.J. Golden, Balasubramanian, Karuppiah, Jose, D.F. Melvin and **Rengarajan, Sangamaeswaran**. "Optimizing friction stir welding parameters for ductility enhancement in AA2029 aluminum alloy and SS316L stainless steel structures: a numerical simulation study" *High Temperature Materials and Processes*, vol. 45, no. 1, 2026, pp. 20250105. <https://doi.org/10.1515/htmp-2025-0105>

## Workshop/Seminars attended:

S.No.	Name of the Workshop	Organizers	Mode of Program	Month & Year
1	Two-day workshop on “Advances in Lean Manufacturing and Application”	MIT Campus, Anna University, Chennai	Offline	March 2009
2	One day workshop on “Nano coating and Application”	CEG campus, Anna University, Chennai	Offline	May 2011
3	One day workshop on “Advances in Manufacturing”	Velammal Engineering College, Chennai.	Offline	July 2011
4	Two-day workshop on “Innovative Product Design and Rapid Manufacturing Strategies”	National Institute of Technology, Tiruchirappalli.	Offline	April 2012
5	One day workshop on “Role of NDT & Metallography in Failure Analysis”	CEG campus, Anna University, Chennai.	Offline	August 2012
6	Two-day workshop on “Recent Trends in Natural Composites and Its Hybrids for Structural Application”	Sri Venkateswara College of Engineering, Sriperumbudur.	Offline	September 2013
7	One day workshop on “Advances in Metal Inert Gas Welding Process”	Sri Venkateswara College of Engineering, Sriperumbudur.	Offline	February 2014
8	One day workshop on “Green Composites”	Sri Sairam Institute of Technology, Chennai	Offline	August 2014
9	Two-day workshop on “Recent Research Trends in Manufacturing Engineering”	CEG campus, Anna University, Chennai.	Offline	October 2014
10	Two-day NRB Research Dissemination Workshop On ‘Friction Stir Processing of Aluminium alloys and Composites’	Indian Institute of Technology, Madras.	Offline	March 2015
11	One day workshop on “Advancements in Welding Technology”	National Institute of Technology, Tiruchirappalli.	Offline	December 2015
12	One day workshop on “Optimization Techniques”	Kings Engineering College, Chennai.	Offline	August 2016
13	One day workshop on “Emerging Trends in Welding Technology”	VIT University, Vellore	Offline	August 2016
14	Two-day workshop on “Materials Characterization”	CEG campus, Anna University, Chennai.	Offline	February 2017
15	One day workshop on “New Approaches in Welding Engineering”	SSN College of Engineering, Kalavakkam	Offline	April 2017
16	One day workshop on “Robotic Welding and its Applications”	PSG College of Technology, Coimbatore	Offline	October 2017
17	Two-day Seminar on “Challenges and Recent Developments in Welding of Non-Ferrous Alloys”	Sri Venkateswara College of Engineering, Sriperumbudur.	Offline	November 2017
18	Five-day workshop on “Advanced Welding Techniques for Joining Dissimilar High Strength Alloys for Aerospace Applications”	Indian Institute of Information Technology, Design and Manufacturing	Offline	April/May 2019

19	One day webinar on “Friction Stir Welding of Aluminium Alloys”	Panimalar Institute of Technology, Chennai	Online	May 2020
20	Two-day workshop on “Additive Manufacturing”	S.A. Engineering College	Online	May 2020
21	One day webinar on “Joining of Tubes using Solid State Welding”	Coimbatore Institute of Engineering and Technology	Online	June 2020
22	Two-day International workshop on “Advancements in Design and Materials for Product Development”	VIT University, Vellore	Online	October 2020
23	Three-day Seminar on “Metallurgical Failure Analysis of Engineering Components”	Indus University, Gujarat	Online	October 2020
24	Three-day Workshop on “Case Analysis and Development”	Sri Sairam Engineering College, Chennai	Offline	December 2021
25	Three-day Workshop on “Research and Development Activities”	Sri Sairam Engineering College, Chennai	Online	December 2021
26	Three-day Workshop on “Advanced Materials Processing and Characterization”	Jai Shriram Engineering College, Tirupur	Offline	March 2022
27	One day Workshop on “Recent Trends in Materials Joining Processes”	CEG campus, Anna University, Chennai.	Offline	May 2022
28	Two-day webinar on “Recent Trends in Shape memory Alloys”	Indian Institute of Technology Madras	Offline	February 2023
29	Two week National level Virtual workshop on “Advanced Research Methodology”	SRM University	Online	July 2023

### **FDP/STTP Attended:**

<b>S.No</b>	<b>Name of the FDP</b>	<b>Organized by (Institution Name)</b>	<b>Mode of Program</b>	<b>Month &amp; Year</b>
1	MHRD Faculty Development Program on “Advances in Manufacturing Engineering”	National Institute of Technology, Calicut.	Offline	June 2011
2	BRNS Sponsored Program on “Clinic on Failure Analysis (CFA 2011)”	Indira Gandhi Centre for Atomic Research, Kalpakkam.	Offline	December 2011
3	Faculty Development Program on “Design of Experiments and Optimization Techniques”	Sri Venkateswara College of Engineering, Sriperumbudur	Offline	December 2013
4	Faculty Development Program on “Processing and Characterization of Composite materials including Natural fiber Reinforced Composites”	Sri Sairam Institute of Technology, Chennai	Offline	March 2015

5	Faculty Development Program on “Design of Machine Elements”	Saveetha Engineering College, Chennai	Offline	June 2016
6	Faculty Development Program on “Recent Developments in Non-Destructive Testing and Materials”	Tagore Engineering College, Chennai	Offline	December 2016
7	Faculty Development Program on “Finite Element Analysis”	Rajalakshmi Engineering College, Thandalam, Chennai	Offline	December 2017
8	AICTE-ISTE Induction/Refresher Programme on “Modern Pedagogy for Engineering Teachers in Making Digital India”	Sri Sairam Institute of Technology, Chennai	Offline	May 2018
9	Faculty Development Program on “FEA using ANSYS Workbench and Solid works Simulations and Smart Manufacturing Using Mastercam”	Vel Tech High Tech Engineering College	Offline	December 2018
10	Faculty Development Program on “Recent Developments in Engineering Materials and Nanotechnology”	Tagore Engineering College, Chennai	Offline	December 2018
11	Faculty Development Program on “Advances in Computational Fluid Dynamics”	Vel Tech High Tech Engineering College	Offline	June 2019
12	Faculty Development Program on “Finite Element Analysis”	Sri Sairam Institute of Technology, Chennai	Offline	November 2019
13	Faculty Development Program on “Introduction to Finite Element Analysis”	Panimalar Institute of Technology, Chennai	Online	May 2020
14	Faculty Development Program on “Mechanical Behavior of Advanced Materials and its Scope for Engineering Application”	Sri Venkateswara College of Engineering, Sriperumbudur	Online	June 2020
15	ATAL Online Faculty Development Program on “3D Printing and Design”	Sathyabama Institute of Science and Technology, Chennai	Online	August 2020
16	ATAL Online Faculty Development Program on “Additive Manufacturing”	Noida Institute of Technology, Greater Noida	Online	November 2020
17	AICTE Short Term Training on “Enhancing Research and Development through Project Based Learning to Achieve Outcome Based Education in Engineering”	Sri Krishna College of Technology, Coimbatore	Online	November 2020
18	AICTE-ISTE online Induction/Refresher Programme “Strategies in Teaching Learning”	Sri Sairam Institute of Technology, Chennai	Online	December 2020

19	ATAL Online Faculty Development Program on “Advances in Manufacturing”	SardarVallabhbhai National Institute of Technology.	Online	January 2021
20	ATAL Online Faculty Development Program on “Applied Mathematics (Computational Techniques)”	Indian Institute of Information Technology, Nagpur	Online	February 2021
21	Faculty Development Program on “Engineering Graphics and its Applications”	Vel Tech High Tech Engineering College	Offline	July 2023
22	Online Faculty Development Program on “Recent Advances in Sustainable Materials and Developments in 3D printing Technologies”	Rajalakshmi Engineering College, Thandalam , Chennai	Online	May 2024
23	Virtual National level Faculty Development Program on “Modern Trends in Manufacturing Process”	Easwari Engineering College, Chennai	Online	August 2024
24	Faculty Development Program on “Green Engineering and Sustainable Technology”	Jai Shriram Engineering College, Tirupur	Offline	June 2025
25	International Faculty Development Program on “Mechanical Metamorphosis Shaping the Future Technology”	Bharath University, Chennai	Online	January 2026
26	Faculty Development Program on “Integrated Approaches to Composites Processing, Characterization and Application Enabled by Effective Utilisation of Modern Research Tools”	Sethu Institute of Technology	Online	February 2026

### Conference Attended:

S.No.	Name of the Conference	Organizer	Month & Year
1	International Conference on “Recent Advances in Mechanical Engineering”	Noorul Islam University, Kanyakumari	April 2010
2	International Colloquium on “Materials Manufacturing and Metrology”	Indian Institute of Technology Madras	August 2014
3	International Conference on “Recent Advances in Materials and Manufacturing Engineering”	Sri Sairam Institute of Technology, Chennai	December 2014

4	International Conference on “Advances in Materials and Manufacturing and Applied Sciences”	Sri Sairam Institute of Technology, Chennai	March 2017
5	International Conference on “Recent Innovations and Developments in Mechanical Engineering”	Bharat Institute of Higher Education and Research, Chennai	November 2019
6	International Conference on “Materials and Manufacturing and Mechanical Engineering for Sustainable Developments”	Sri Sairam Institute of Technology, Chennai	November 2020
7	National Conference on “Recent Innovation in Mechanical Engineering”	Jai Shriram Engineering College, Tirupur	November 2021
8	National Conference on “Emerging Trends in Mechanical Engineering”	Sri Sairam Institute of Technology, Chennai	March 2022
9	International Conference on “Materials & Manufacturing for Sustainable Developments”	SRM University, Delhi	September 2022
10	International Conference on “Advances in Mechanical Engineering and Material Science”	VIT University, Amaravati	April 2023
11	International Conference on “Design , Materials Metaheuristic Algorithm for Engineering”	Jai Shriram Engineering College, Tirupur	April 2024
12	International Conference on “Industrial Engineering and Operations Management”	VIT University, Vellore	November 2025

### **Programs Organized (via Dept. /Cells/Clubs):**

<b>S.No.</b>	<b>Name of the Program</b>	<b>Responsibility Held</b>	<b>Month &amp; Year</b>
1	Short term Webinar cum Online Training Program on” Intelligent Robotics and Machine Vision Technology	Co-ordinator	May 2020

2	Faculty Development Program on “Manufacturing, Machining and Testing of Composites Materials”	Co-ordinator	June 2020
3	Webinar on “Bio Diversity: It’s Time for Nature”	Co-ordinator	June 2020
4	Webinar on “Future in Automotive Sector: Regulation Perspective”	Co-ordinator	August 2020
5	Celebration of Engineer’s Day	Co-ordinator	September2020
6	Webinar on “Digital Transformation in Manufacturing Industry 4.0”	Co-ordinator	September2020
7	Virtual Awareness Programme on “Design Thinking with Innovative Concepts in 3D Printing”	Co-ordinator	October 2020
8	International Webinar on “Science of Meditation”	Co-ordinator	November 2020
9	Webinar on “Design Thinking, Critical Thinking and Innovation Design”	Co-ordinator	December 2020
10	Webinar on “Student’s Innovation and Entrepreneurship Development”	Co-ordinator	January 2021
11	Webinar on “How to plan start up and Legal & Ethical steps”	Co-ordinator	February 2021
12	“Entrepreneurship Awareness and start-up Funding Options Program”	Co-ordinator	June 2021
13	Seminar on “Understanding Angel and Venture Capital Funding”	Co-ordinator	September2021
14	Webinar on “Design Validation through Various Model of Design Validation”	Co-ordinator	October 2021
15	Seminar on “Exposure and Field visit for Problem identification”	Co-ordinator	November 2021
16	Discussion on “ATMA NIRBHAR BHARAT” Vocal for Local Make in India	Co-ordinator	November 2021
17	“Exposure and Field visit to MSME Cluster”	Co-ordinator	January 2022
18	Workshop on “Industrial Safety Importance, Need analysis and Measures”	Co-ordinator	March 2022
19	Workshop on “Advanced Welding Technology”	Co-ordinator	May 2022
20	Two-day workshop on “Smart Manufacturing and Robotics”	Co-ordinator	January 2023
21	Two-day Workshop on “Weld begin 2024”	Co-ordinator	March 2024
22	Guest Lecture on “Solid State Joining and The Spark of Artificial Intelligence in Welding and Material Processing”	Co-ordinator	April 2024

23	Guest Lecture on “Application of Electronics in Ocean Technology”	IAS SCOPE	April 2025
24	Guest Lecture on “Early Warning System for Avoiding Man Animal Conflict”	IAS SCOPE	May 2025

**Patent:**

1. Published a patent on “An Automated Guided Mobile Robot with Image Recognition”

**ON - LINE COURSES**

**NITTTR Courses: Eight Module Completed**

- Module 1: Orientation Towards Technical Education & Curriculum Aspects
- Module 2: Professional Ethics & Sustainable Development
- Module 3: Communication Skills, Modes and Knowledge Dissemination
- Module 4: Instructional Planning and Delivery
- Module 5: Technology Enabled Learning and Life-Long Self Learning
- Module 6: Student Assessment and Evaluation
- Module 7: Creative Problem Solving, Innovation and Meaningful R & D
- Module 8: Institutional Management & Administrative Procedures

**NPTEL and FDP Certification**

1. Weldability of Metals (Elite)
2. Advances in Additive Manufacturing of Materials (Elite)
3. Inspection and Quality Control in Manufacturing (Elite)
4. Joining Technologies for Metals
5. Advances in welding and Joining Technologies
6. Welding Processes
7. Theory and Practice of Non-Destructive Testing

**NPTEL Mentor**

1. Inspection and Quality Control in Manufacturing
2. Joining Technologies for Metals

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