

SRI SAI RAM ENGINEERING COLLEGE
DEPARTMENT OF MECHANICAL ENGINEERING

Name: **R. SENTHIL KUMAR**



Designation : Assistant Professor

Qualification : M.E. (P.hD)

Area of Specialization : Manufacturing Engineering

Experience : Teaching – 15 Years 8 Months
: Industry- Nil

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Postal Address : Department of Mechanical Engineering
Sri Sai Ram Engineering College,
Sai Leo Nagar, West Tambaram
Chennai - 600044 Tamil Nadu.

Professional Experience:

Sl. No	College/Organization	Designation	Period	Total Period	Nature of work
1	Sri Sai Ram Engineering Collge	Assistant Professor	June 2010 to Till Date	14 Years 1 Month	Teaching
2	GKM College of Engineering & Technology	Lecturer	December 2008 to June 2010	1 Year 7 Months	Teaching

Educational Qualification:

Category	Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University	% of Marks / Grades obtained	Class obtained
PG	M.E.	Manufacturing	2008	Anna University, MIT Campus	Anna University	8.6	I / Distinction
UG	B.E.	Mechanical	2006	Sri Sai Ram Engineering College	Anna University	75	I
HSC			2002	Madras Christian College Hr. Sec. School	Tamil Nadu State Board	89.33	I
SSLC			2000	Madras Christian College Hr. Sec. School	Tamil Nadu State Board	80.2	I

Achievements

➤ Patents

- Registration of Design “**Tablet Pouches for Hassle Free Unwrapping of Tablets**” Dr. T. Subathra, Dr. B. Vijaya Ramnath, **R. Senthil Kumar**, S. Krishnaraj, Design No. **373993-001 (11/11/2022)**
- Registration of Design “**Optimized Valvular Conduit for Intravenous Infusion System**” Hari Krishnan V, Aswath Narayanan D, Ajaykumar K, .Murali B, **Senthil Kumar R**, S Krishnaraj, Subathra T, **R. Senthil Kumar**, S. Krishnaraj, Design No. **342839-001 (28/04/2021)**
- Published a Patent “**Ergonomically Designed Multipurpose Foldable Trolley**” Application No. **202341060155 A (27/10/2023)**.
- Published a Patent “**Linkage Based Wheelchair cum Bed**” Application No. **202341019323 A (14/04/2023)**.
- Published a Patent “**Smart Robotic Based for Total Quantity and Quality Management of Products in Manufacturing Units**” Application No. **202241054863A (07/10/2022)**.

- Published a Patent **“Design of Solar Thermal Power Integration Systems to Increase the Efficiency of Renewable Energy Resources”** Application No. **202241025379A (13/05/2022).**
- Published a Patent **“Experimental Research on Metal Matrix Composite to be used in Hydraulic Turbine Bush”** Application No. **202121035723A (27/08/2021).**
- Published a Patent **“System and Method of Biogas Production- A Household Biogas Digesters”** Application No. **202141031206A (16/07/2021).**

➤ **Funded Projects**

- **“RA - Solar Decoction Extractor”** Rs. 1,00,000/- funded by DST – IEDC, Sri Sai Ram Engineering College (2018 – 2019).
- **“ISIS Head Gears”** Rs. 1,00,000/- funded by DST – IEDC, Sri Sai Ram Engineering College (2016 – 2017).

➤ **Journals**

- **R. Senthil Kumar, B. Vijaya Ramnath & K. Palanikumar, “Fiber Orientation Influence on Mechanical Properties of SiC Particles Filled Epoxy Based Composites Reinforced with Al mesh and Unidirectional Basalt Fibers”** Silicon (2022). <https://doi.org/10.1007/s12633-022-02183-8>.
- **Senthil Kumar R, S Krishnaraj, Aswath Narayanan D, Ajay Kumar K, Hari Krishnan V, Murali B, Subathra T, “Optimization of One Way Tesla Valve”** SAE Technical Paper (2021), 2021-28-0250, <https://doi.org/10.4271/2021-28-0250>.
- **S. Sathish, Mubeen Shaikh, L. Girisha, R. Senthil Kumar, M. Ramesh Kumar, Ram Subbiah, “Evaluation of hardness and analysis of parameters on reinforced Al-MMC”** Materials Today Proceedings (2021), [Volume 47, Part 14](https://doi.org/10.1016/j.matpr.2021.04.631), Pages 4341-4344, <https://doi.org/10.1016/j.matpr.2021.04.631>

- S Krishnaraj, **R Senthil Kumar**, A Gokula Krishnan, G Ganeshkumar, M. Mohan, M Nirmal “**Aerodynamic Analysis of Hybrid Drone**” IOP Conference Series: Materials Science and Engineering (2021), <https://doi.org/10.1088/1757-899X/1012/1/012023>
- **Senthil Kumar R**, S Krishnaraj, Nidhish V, Citha Ranjith M, Jothishankar D, Aravinth TV, Subathra T, “**RA-Solar Herbal Decoction Extractor**” SAE Technical Paper (2020), 2020-28-0448, <https://doi.org/10.4271/2020-28-0448>.
- **R. Senthil Kumar**, S. Gajendran, R. Kesavan, “**Evaluation of Optimum Machining Parameters by AWJM for Granite through Multi Response Methods**” Materials Today: Proceedings(2020) [Volume 22, Part 4](https://doi.org/10.1016/j.matpr.2020.03.441), 2020, Pages 3056-3066. <https://doi.org/10.1016/j.matpr.2020.03.441>
- **R. Senthil Kumar**, Krishnaraj.S Vijaya Ramnath.B, Adhitya.R.M, Anand.R.Iyer, “**Impact and Hardness Characteristics of Cfrp-Kenaf-Abaca Fiber Composites**” International Journal of Recent Technology and Engineering (IJRTE), ISSN: 2277-3878, Volume-8 Issue-4, November 2019.
- **R Senthil Kumar**, S.Krishnaraj, D Jothishankar, V Nidhish, M Citha Ranjith, B Navin, “**Compact Foritos Portable Staircase**” Journal of the Gujarat Research Society (2019), Vol. 21 No. 17(2019): <http://gujaratresearchsociety.in/index.php/JGRS/article/view/3789>
- S. Krishnaraj, **R Senthil Kumar**, S. Siva Chandran, M. Sudhakar, Ravishankar sathyamurthy , K. Karan “**Design and Analysis of Automatic Solar Panel Cleaning System**” Journal of the Gujarat Research Society (2019), Vol. 21 No. 17(2019): <http://gujaratresearchsociety.in/index.php/JGRS/article/view/3790>
- Aadeshwaran K, Jaya Suriya S, Tamizharasan V, Vignesh K, **Senthil Kumar R**, “**Economic Harvester**” International Journal of Research and Analytical Reviews (IJRAR), (E-ISSN 2348-1269, P- ISSN 2349- 5138), July 2019, Volume 6, Issue 3. <https://www.ijrar.org/papers/IJRAR1AVP022.pdf>
- **R. Senthil Kumar**, S. Gajendran, R. Kesavan, “**Estimation of Optimal Process Parameters for Abrasive Water Jet Machining Of Marble Using Multi Response**

Techniques” Materials Today: Proceedings (2018), [Volume 5, Issue 5, Part 2](#), 2018, Pages 11208-11218, <https://doi.org/10.1016/j.matpr.2018.01.145>

- T. Prithivi, R. Premkumar, **R. Senthil Kumar**, “**Abrasive Waterjet Machining of Various Materials: A Review**” Advances in Natural and Applied Sciences (2017). 11(6) Special 2017, Pages: 445-453.
<http://www.aensiweb.net/AENSIWEB/anas/anas/2017/Special%202/445-453.pdf>
- **R. Senthil Kumar**, S. Gajendran, L. Lingaraj, R. Kesavan, “**Optimization of process parameters for machining marble using abrasive water jet machining through multi response techniques**” Indian Journal of Science and Technology (2016), Vol 9 (S1) <https://dx.doi.org/10.17485/ijst/2016/v9iS1/108477>
- V. Pandyaraj, S. Ravindran, **R. Senthil Kumar** and V. Aiswarya, “**Investigation of Pump Impeller Performance using CFD**” Indian Journal of Science and Technology (2016), Vol 9 (S1) [https://dx.doi.org/10.17485/ijst/2016/v9iS\(1\)/108472](https://dx.doi.org/10.17485/ijst/2016/v9iS(1)/108472)
- M. Arunachalam, Kailash Padmanaban, K. Asvin, **R. Senthil Kumar**, B. Vijaya Ramnath, “**Design and Fabrication of 3D Syskevis Metrisis**” Applied Mechanics and Materials (2012), Vols. 110-116 pp 4744-4747,
<https://doi.org/10.4028/www.scientific.net/AMM.110-116.4744>

➤ **Conferences Attended**

- International conference, 6th Edition “**Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility- ADMMS 2022**” SAEINDIA Southern Section jointly with SAE International and hosted by SRM Institute of Science and Technology, Kattankulathur, Chennai, 25th & 26th November 2022.
- Krishnaraj S, **Senthil Kuamar R**, Gokula Krishnan A, Ganeshkumar G, Mohan M, Nirmal M, “**Aerodynamic Analysis of Hybrid Drone**” in First International Conference on Robotics, Intelligent Automation and Control Technologies (RIACT 2020), VIT, Vellore.

- **R. Senthil Kumar, S. Gajendran, R. Kesavan, “Evaluation of Optimum Machining Parameters by AWJM for Granite through Multi Response Methods”** in 2nd International Conference on Materials Manufacturing and Modelling, ICMMM – 2019, VIT, Vellore.
- International Conference on **“Future of Advanced Manufacturing (ICFAM)”**, IIT Madras Research Park Auditorium, 15th March, 2019.
- T. Prithivi, R. Premkumar, **R. Senthil Kumar, “Abrasive Waterjet Machining of Various Materials: A Review”** in ICETS’17, 4th International Conference on Engineering Technology & Science, Muthayammal Engineering Institutions, Rasipuram.
- **R. Senthil Kumar, S. Gajendran, L. Lingaraj, R. Kesavan, “Optimization of process parameters for machining marble using abrasive water jet machining through multi response techniques”** in ICMMMS 2016, International Conference on Mechanical, Materials and Manufacturing Systems. Department of Mechanical Engineering, Sri Sai Ram Engineering College, Chennai.
- M.Arunachalam, Kailash Padmanaban, K. Asvin, **R. Senthil Kumar, B.Vijaya Ramnath, “Design and Fabrication of 3D Syskevis Metrisis”** in ICMAE 2011, International Conference on Mechanical and Aerospace Engineering – 2011 IACSIT Bangkok Conferences.
- **Senthil Kumar. R, Gajendran. S, Sampath Kumar S, “Productivity Enhancement Through Lean Manufacturing”**, AIRPAM – 2008, National Conference on Advances in Robotics, precision Engineering & Manufacturing Techniques, Department of Production Technology, Anna University, M.I.T. Campus, Chennai, Proc. pp.292 - 298, 2008.
- **R. Senthil Kumar, B. Vijaya Ramnath, S. Gajendran, S. Sampath Kumar, “Optimization of steering system assembly through lean manufacturing”**, AIMMS’08, National Conference on Advancements in Manufacturing and Management Systems, organized by Department of Mechanical Engineering, Sri Sairam Engineering College, Chennai. Proc. pp. 9, 2008.

➤ **FDP's / STTP's Attended**

- Attended an Online Faculty Development Program on **“Testing of Materials for Engineering Applications”**, (22nd to 26th) June 2020, Department of Mechanical Engineering, Meenakshi Sundararajan Engineering College Chennai.
- Attended an Online Faculty Development Program on **“Research Methodologies, Tools and Techniques”**, (8th to 12th) June 2020, Department of Electrical and Electronics Engineering, QIS College of Engineering and Technology, Ongole Andhra Pradesh.
- Attended an Online Faculty Development Program on **“Introduction to Soft Computing”**, (8th to 12th) June 2020, Department of Mechatronics Engineering, Rajalakshmi Engineering College (Autonomous), Thandalam, Chennai 602 105.
- Attended Online AICTE Recognized Faculty Development Program on **“Computer Integrated Manufacturing & CNC (CIM/CNC)”**, (25th to 29th) May 2020, Mechanical Engineering Department, National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh.
- Attended Online AICTE Recognized Faculty Development Program on **“Modeling and Simulation using MATLAB”**, (18th to 22nd) May 2020, Mechanical Engineering Department, National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh.
- Attended Online AICTE Recognized Faculty Development Program on **“MATLAB Programming”**, (11th to 15th) May 2020, Electrical Engineering Department, National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh.
- Attended an Online Faculty Development Program on **“An Approach for Technical Skill Enhancement (FDPTSE-2020)”**, (5th to 10th) May 2020, IQAC, Toshniwal Arts, Commerce and Science College, Sengaon, Dist. Hingoli, Maharashtra, India.
- Attended Online AICTE Recognized Faculty Development Program on **“Computer Aided Design and Manufacturing (CAD/CAM)”**, (27th April 2020 to 01st May

2020), Mechanical Engineering Department, National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh.

- Attended Online AICTE Recognized Faculty Development Program on **“Operational Research – An Introduction”**, (20th to 24th) April 2020, Applied Science Department, National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh.
- Attended Online AICTE Recognized Faculty Development Program on **“Internet of Things”**, (15th to 19th) April 2020, Computer Science and Engineering Department, National Institute of Technical Teachers Training and Research (NITTTR) Chandigarh.
- Attended AICTE Sponsored Faculty Development Program on **“IoT and Advanced Technologies in Manufacturing”**, (11th to 23rd) November 2019, Department of Mechanical Engineering, Panimalar Engineering College, Chennai 600 123.
- Attended a Short Term Training Program on **“Natural Fiber Composites - Recent Technology for Sustainability and Eco - Friendly Environment”**, (24th to 29th) June 2019, Department of Mechanical Engineering, Sri Sairam Engineering College, Chennai
- Attended a Faculty Development Program on **“Processing and Characterization of Composite Materials including Fiber Re-inforced Composites”**, (18th to 31st) March 2015, Department of Mechanical Engineering, Sri Sai Ram Institute of Technology, Chennai.
- Attended a Faculty Development Program on **“Unconventional Machining Processess”**, (3rd to 10th) December 2013, Department of Production Technology, Anna University, MIT Campus, Chennai.
- Attended a Faculty Development Program on **“Advancements in Materials, Manufacturing Processes & Management Systems”**, (4th to 16th) November 2013, Department of Mechanical Engineering, Sri Sai Ram Engineering College, Chennai.

- Attended a Faculty Development Program on **“Recent Developments in Manufacturing & Management”**, (25th to 30th) July 2011, Department of Mechanical Engineering, Sri Sai Ram Engineering College, Chennai.

➤ **Workshops Attended**

- Attended Two days Online Workshop on **“Additive Manufacturing”**, 15th & 16th May 2020, Department of Mechanical Engineering, S.A. Engineering College (Autonomous) Chennai.
- Attended Two days Online Workshop on **“Patent Drafting and Processing with Importance of Trademark & Copyright”**, 6th & 7th May 2020, Hexacube & IJER.
- Attended Two days Online Workshop on **“Fuzzy Logic and Neural Network Approaches for Engineering Solutions”**, 29th & 30th April 2020, Hexacube & IJER.
- Attended a Three days Online Workshop on **“Design of Experiments: An Engineering Perspective”**, 25th 26th & 27th April 2020, Hexacube & IJER.
- Attended a Two days National Seminar on **“Role of Smart Materials in Aerospace and Engineering Applications”**, 16th & 17th December 2019, St. Joseph's College of Engineering, Chennai.
- Attended a one day workshop on **“Magnetically Impelled Arc Butt (MIAB) Welding”**, 13th April 2019, Department of Metallurgical and Materials Engineering, IIT Madras.
- Attended a one day National Seminar on **“3D printing of composite materials - A digital additive manufacturing - (PRICOM'2019)”**, 20th March 2019, AMET University, Chennai.
- Attended a one day workshop on **“Advanced Automotive Research”**, 3rd December 2019, IC & SR Auditorium, IIT Madras.
- Attended a one day workshop on **“Wiley Author Workshop”**, 19th November 2018, University Library, College of Engineering, Guindy, Chennai.

- Attended a one day workshop on **“Recent Trends in Optimization Techniques – RTOT 2017”**, 21st April 2017, Department of Mechanical Engineering, Velammal Engineering College, Chennai.
- Attended a one day National Level workshop on **“Advances in Design of Experiments (DOE)”**, 21st October 2016, Department of Manufacturing, School of Mechanical Engineering, VIT University, Vellore.
- Attended a one day workshop on **“Recent Trends in AWJM”**, 19th February 2016, Department of Production Technology, Anna University, MIT Campus, Chennai.
- Attended a one day workshop on **“Development, Manufacturing and Analysis of Advanced Composites”**, 19th December 2015, Department of Mechanical Engineering, SRM University, Chennai.
- Attended a Two day National Level workshop on **“Design of Experiments”**, 24th & 25th August 2014, Department of Mechanical Engineering, Sri Sairam Institute of Technology, Chennai.
- Attended a one day workshop on **“Role of Lean Manufacturing on Organization Competitiveness”**, 28th August 2014, Department of Mechanical Engineering, Sri Sairam Engineering College, Chennai.
- Attended a one day workshop on **“Renewable Energy”**, 24th February 2012, Department of Mechanical Engineering, Sri Sairam Engineering College, Chennai.
- Attended a one day workshop on **“Art of Journal & Thesis Writing”** 19th January 2012, Department of Mechanical Engineering, Sri Sairam Engineering College, Chennai.

➤ Online Courses

- Completed a self paced training course **“MATLAB Onramp”**, Mathworks Training Services
- Completed a four weeks online training on **“Advanced Excel”** from 23rd May, 2020 to 22nd June, 2020, Internshala Trainings

- Completed 20 Online Courses, Coursera Platform
- Completed 7 Online Courses, Capability Development, TATA
- Completed 7 Online Courses, UDEMY

➤ **NPTEL Courses**

- *Introduction To Professional Scientific Communication*
- *Ergonomics Workplace Analysis*
- *Product Design and Development*
- *Product Design and Manufacturing*
- *Design Practice*
- *Manufacturing Guidelines For Product Design*
- *Design Thinking - A Primer*
- *Education for Sustainable Development*
- Accreditation and Outcome based Learning
- Introduction on Intellectual Property to Engineers and Technologists
- Patent Drafting for Beginners
- Cost Accounting
- Effective Engineering Teaching in Practice
- Engineering Economic Analysis
- Strength of Materials