### SRI SAI RAM ENGINEERING COLLEGE

### **DEPARTMENT OF MECHANICAL ENGINEERING**

Name: T. BABU



Designation: Assistant Professor

Qualification: B.E., M.Tech. (Ph.D)

Area of Specialization: CAD

Experience : Teaching – 16 Years 1 Months

: Industry- Nil

Email ID : <u>babu.mech@sairam.edu.in</u>

Contact No. : 9884655923

: Department of Mechanical Engineering

Sri Sai Ram Engineering College, Sai Leo Nagar, West Tambaram

Chennai - 600044 Tamil Nadu.

# **Professional Experience:**

Postal Address

Sl. No	College/Organization	Designation	Period	Total period	Nature of work	
1.	Sri Sai Ram Engineering	Assistant	01.06.2015 to	10 Years	Teaching	
	College	Professor	Till Date	1 Months		
2.	Rrase College of	Assistant	05.12.2014 to	5 Months	Teaching	
	Engineering	Professor	26.05.2015	22 Days		
3.	Sri Ramanujar	Assistant	28.05.2014 to	6 Months	Tanahina	
	Engineering College	Professor	03.12.2014	7 Days	Teaching	
4.	Jaya Engineering	Assistant	16.12.2013 to	5 Months	Teaching	
	College	Professor	16.05.2014	3 Months		
5.	Sri Balaji Polytechnic	Lastanan	14.07.2009 to	4 Years	Teaching	
	College	Lecturer	14.11.2013	4 Months		

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.Tech	CAD	2013	SRM University	SRM University	6.971	I
UG	B.E.	Mechanical	2009	Sr Ramanujar Engineering College	Anna University	74	I
Diploma	Diploma	Mechanical Engneering	2006	Arulmigu Palaniyandavar Polytechnic College	DOTE	73.5	I
SSLC			2003	ITO Higher Secondary School	Tamil Nadu State Board	84.6	-

#### **Achievements:**

• Selected among the top 100 teams in the Naan Mudhalvan Niral Thiruvizha Hackathon and awarded a cash prize of ₹10,000.

### **Industrial Training Attended:**

- EXCEL Die Castings, Thirumudivakkam, Chennai from 10.01.2022 to 21.01.2022.
- Emachineshop, Ekkattuthangal, Chennai from 10.06.2024 to 16.06.2024.

### Faculty/STTP/ Workshop /Training Program (Orientation programmes) Attended:

- One day international seminar on "Recent Advances in Composite Materials" held on 26<sup>th</sup>
   April 2014 organized by Sri Ramanujar Engineering College, Chennai.
- Two days Faculty Development Program on "Teaching Excellence in Engineering & Management Curriculum" on 20<sup>th</sup> & 21<sup>st</sup> June, 2016 at Sri Sai Ram Engineering College, Chennai.
- Three days Faculty Development Program on Computer Aided Design and Manufacturing" on 4<sup>th</sup> to 6<sup>th</sup> August, 2016 at Sri SaiRam Engineering College.
- One day workshop on "Value Engineering using ANSYS" held on 19<sup>th</sup> August 2016 at Sri SaiRam Engineering College.
- Five days Faculty Development Program on "Autodesk Inventor" on 4<sup>th</sup> June 2018 to 8<sup>th</sup> June 2018 Conducted by ICT Academy at Sri Sai Ram Institute of Technology, Chennai.

- Three days workshop on "Creo Parametric D Modelling Software and its Applications" at Sri Sairam Engineering College from 13<sup>th</sup> to 15<sup>th</sup> June 2018.
- One day workshop on IPR Arena Patent Filing Procedure on 21<sup>st</sup> June 2018 at Sri Sairam Engineering College.
- Five days Faculty Development Programme on "Engineering Teaching Pedagogy and Teaching Learning Process" from 03.12.2018 to 07.12.2018 at Sri Sairam Engineering College.
- Six days Faculty Development Programme on "Robotics" from 13<sup>th</sup> may 2019 to 18<sup>th</sup> may 2019 at Sri Sairam Engineering College.
- Six days Faculty development programme on "Working Culture for Professionals" from 11<sup>th</sup> November 2019 to 16<sup>th</sup> November 2019.
- One day workshop on Research Scopes in Mechanical Science conducted by Chennai Institute of Technology on 07.05.2020.
- 5 days Faculty Development Program on "Materials for Thermal and Renewable Energy Research" from 20th May, 2020 to 24th May, 2020 organized by Department of Mechanical Engineering, Sri Sai Ram Institute of Technology.
- One day Faculty Development Program on "CFD simulation of Thermal Management of Batteries and Power Converters" organized by Vel Tech High Tech Dr. Rangarajan Dr. Sakuntala Engineering College on 28.05.2020.
- 5 days online Faculty development program on "Emerging Trends in Mechanical Engineering" organized by department of Mechanical engineering, St. Peters Engineering college, Hyderabad from 02.06.2020 to 06.06.2020.
- TEQIP-III sponsored one week online Faculty Development Programme on "RECENT ADVANCES IN MECHANICAL ENGINEERING" organized by the Department of Mechanical Engineering from June 8th to June 13th 2020.
- AICTE Sponsored Six days Virtual Short Term Training Program on "Finite Element Method for Engineering Applications" from 05.10.2020 to 10.10.2020 organized by Sri Sai Ram Engineering College
- AICTE sponsored One Week Online STTP on "Research Aspects Of Powder Metallurgy Based Direct Digital Manufacturing" from 12.10.2020 to 17.10.2020 organized by Mepco Schlenk Engineering College, Sivakasi.

- AICTE Training and Learning (ATAL) Academy online FDP on "3D Printing & Design" from 19.10.2020 to 23.10.2020 organized by Dr. N. G. P. Institute of Technology.
- AICTE Training and Learning (ATAL) Academy online FDP on "Waste Management" from 26.10.2020 to 30.10.2020 organized by Dr. M. G. R. Educational and Research Institute.
- AICTE Sponsored one week Short Term Training Program on "Multidisciplinary Competency Training for Mechanical Engineers" from 02.11.2020 to 07.11.2020 organized by Sri Krishna College of Engineering and Technology, Coimbatore.
- AICTE Training and Learning (ATAL) Academy online FDP on "Electric Vehicles" from 30.11.2020 to 04.12.2020 organized by IFET College of Engineering.
- FDP on Design, Optimization and Manufacture of Materials from 07.03.2022 to 13.03.2022 organized by SSN College Of Engineering.
- FDP on Product Design using Fusion 360 from 22.08.2023 to 25.08.2023 organized by ICT Academy.
- Workshop on Faculty Sensitization Program on Sponsored & R & D Projects on 09.01.2024 organized by BIS.
- 5 days FDP on Latest Trends in Additive Manufacturing from 03.06.2024 07.06.2024 organized by Dr. MGR Educational and Research Institute.
- 5 days FDP on "OBE & NEP 2020" from 10.06.2024 14.06.2024 organized by PBR Visvodaya Institute of Technology & Science.
- Six Day Online International Faculty Development Program on Additive Manufacturing Advancements in Different Applications(AMADA-24) from 21.10.2024 - 26.10.2024 organized by SRM Institute of Science and Technology, Ramapuram Campus.
- Six days international Faculty Development Program on Advanced Materials for Defence and Aerospace Applications from 27.01.2025 to 01.02.2025 organized by Ballari Institute of Technology & Management.

## **NPTEL Courses Completed:**

Sl. No	Course Name	No. of Weeks	Year of Completion	% Marks Obtained	Status
1	Engineering Metrology	(12 Weeks)	2018	<i>78</i>	Elite
2	Inspection and Quality Control in Manufacturing	(4 Weeks)	2021	85	Elite + Silver <b>Top 5%</b>
3	Techniques of Materials Characterization	(12 Weeks)	2022	56	Successfully Completed
4	Laser Based Machining	(8 Weeks)	2023	<i>78</i>	Elite + Silver
5	Manufacturing Process Technology - I & II	(12 Weeks)	2024	71	Elite
6	Manufacturing Processes - Casting and Joining	(4 Weeks)	2024	54	Successfully Completed
7	Manufacturing System Technology Part 1 & 2	(12 Weeks)	2024	64	Elite
8	Automation in Manufacturing	(8 Weeks)	2024	86	Elite + Silver <b>Top 5%</b>
9	Computer Integrated Manufacturing	(12 Weeks)	2025	81	Elite + Silver
10	Advanced Machining Processes	(12 Weeks)	2025	60	Elite

## List of publications in international journals:

- T. Babu, D. Prabu, P. Vijayarajan, M. Murugan, J. Jeykrishnan, "Design and Analysis of composite leaf spring under fatigue load condition", International Journal of Engineering Technology Research & Management, Volume 1, Issue 02, 2017, 1-4.
- D. Prabu, T. Babu, K. Pradeep, S. Sanjay Arun, "A review on mechanical properties of Intra Layer palm fiber (Palmyra Spout) –Flax S Glass fiber reinforced composite. International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), Vol. 8, Issue 3, June 2018, pp. 489-498.
- Krishnan. R, Mahalingam. P. P, Samuel Rathina Kumar. P. S, **Babu. T, "Design and Fabrication of an economical coconut Dehusking machine"**, *International Journal of Engineering and Technology*, 7 (2.8), 2018, pp: 588-591.
- Dutt. P, Babu. T, Murugan. M, Anbarasu. P, Subramani. B "Design and analysis of Composite Parabolic Leaf Spring Under Fatigue Load Condition", Advances in Manufacturing Technology. Lecture Notes in Mechanical Engineering. Springer, Singapore, April 2019, pp: 113 118.

#### https://doi.org/10.1007/978-981-13-6374-0 58

• **Babu T.,** Ashwin S., Naidu M., Muthukumaaran C., Ravi Raghavan C. (2019) "Sleep **Detection and Alert System for Automobiles**". *Advances in Manufacturing Technology. Lecture Notes in Mechanical Engineering. Springer*, Singapore, April 2019, pp: 527-532

# http://doi.org/10.1007/978-981-13-6374-0\_14

• Babu T., Sudharshan R., Suhail M., Pradeep K., Sanjay Arun S. (2019) "Framework Execution and Schematic of Jounce Bumper in Two-Wheeler Fork". Advances in Manufacturing Technology. Lecture Notes in Mechanical Engineering. Springer, Singapore, April 2019, pp: 503-509.

# https://doi.org/10.1007/978-981-13-6374-0\_56

- T. Babu, R. Sudharshan, R. Akil, S. Chiranjeev, "Analysis and Shape Optimization of disc Brake with Alternate Material", *International Journal of Recent Technology and Engineering (IJRTE)* ISSN: 2277-3878, Volume-8 Issue-1S2, May 2019, pp. 187-192.
- T. Babu, R.V. Aswin, P. Aravind, V. Prasanna, "Design and Transient Thermo-Structural Analysis of Wind Turbine Disc Brake", International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-1S2, May 2019, pp: 51-56.
- Suresh. M, **Babu.** T, Ravinthiran. A, A. Dhanalakshmi, S. Ganapathy, "**Effect of Sea Water Environment Exposure on Glass Fiber Reinforced Polymer Composites**", *International Journal of Innovative Technology and Exploring Engineering (IJITEE)* ISSN: 2278-3075, Volume-9 Issue-1, November, 2019, pp: 670 674.
- P. Vijaya Rajan, **T. Babu**, G.KarthikPandiyan, D. Venkatragavan, R. Shanmugam, "Auxillary Safety Locking System of Vehicle Doors using Arduino", *International Journal of Innovative Technology and Exploring Engineering (IJITEE)* ISSN: 2278-3075, Volume-9 Issue-1, November 2019, pp. 277-281.
- T. Babu, A. Ravinthiran, S. Rohit Krishnan, P. Muthu Ananda, and V. Pavitharan "A modern low-cost furrow cutting machine" *AIP Conference Proceedings*, Volume 2283, Issue 1, 020001 (2020).

# https://doi.org/10.1063/5.0025075

• A. Ravinthiran, T. Babu, G. Thilak Raj, P. Yaswanth Siddaarth, and K. Selva Kamatchi "Flow variations and comparisons of heat exchanger headers with different cross sections" *AIP Conference Proceedings*, Volume 2283, Issue 1, 020002 (2020).

https://doi.org/10.1063/5.0029256

- A Ravinthiran, M Suresh, T Babu, R Mani and M Arul Prakash, "Design, Analysis and Development of Epoxy Resin made Omnidirectional Wind Turbine", IOP Conf. Series: Materials Science and Engineering, Vol. No: 988, 12044, 2020.
- T. Babu\*, A. Ravinthiran, M.S. Yogeswaran, S. Subash, R. Venkatesh, G. Saibharath, "Teaser Glove for Women Safety", *IOP Conf. Series: Materials Science and Engineering*, Vol. No: 988, 12038, 2020.
- S. Saravanakumar, S. Selvarasu, T. Babu, R. Kamaleshkumar and V. Dineshkumar, "Analysis on Ackermann Error of Steering System using Variable Length Tie-Rod mechanism", *Internat ional Journal of Vehicle Structures & Systems*, Vol. No: 4, Issue No: 3, 374 378, 2022.
- P. S. Samuel Ratna Kumar, S. John Alexis and T. Babu, "Simulation study of high velocity impact analysis on AA7075 nanocomposites", AIP Conference Proceedings, Vol. No: 2446, 120002, 2022.

#### **International Conference Attended:**

- **Babu. T,** Ashwin. S, Mukul Naidu, Muthukumaaran. C, Ravi Raghavan. C, "Sleep detection and alert system for automobiles", Proceedings of the 3<sup>rd</sup> International Conference on Advances in Manufacturing Technology ICAMT 2018, Department of Mechanical Engineering, Chennai Institute of Technology, Kundrathur, Chennai 69, Proc. Pp. 21.
- **Babu. T,** Sudharshan. R, Mohammed Suhail, Pradeep. K, Sanjay Arun. S, "Framework Execution and Schematic of Jounce bumper in two wheeler fork", Proceedings of the 3<sup>rd</sup> International Conference on Advances in Manufacturing Technology ICAMT 2018, Department of Mechanical Engineering, Chennai Institute of Technology, Kundrathur, Chennai 69, Proc. Pp. 21.
- Priyadarshi Dutt, **Babu. T,** Murugan. M, Anbarasu. P, Bala Subramani, "Design and analysis of composite parabolic leaf spring under fatigue load condition", Proceedings of the 3<sup>rd</sup> International Conference on Advances in Manufacturing Technology ICAMT 2018, Department of Mechanical Engineering, Chennai Institute of Technology, Kundrathur, Chennai 69, Proc. Pp. 21.
- International conference on Recent Trends in Advanced Material Processing ICRTAMP 2019, on 20<sup>th</sup> & 21<sup>st</sup> March 2019 at Chennai Institute of Technology. "Design and Transient Thermo-Structural Analysis of Wind Turbine Disc Brake".
- International Conference on Recent Trends in Mechanical & Materials Engineering on 12<sup>th</sup> & 13<sup>th</sup> December 2019 at Chennai Institute of Technology. "A Modern Low Cost Furrow Cutting Machine".

- International Conference on Recent Trends in Mechanical & Materials Engineering on 12<sup>th</sup> & 13<sup>th</sup> December 2019 at Chennai Institute of Technology. "Flow Analysis and Comparison of Heat Exchanger Headers of Varying Cross Sections.".
- International Conference on Recent Developments in Material Science and Applications on 25<sup>th</sup> & 26<sup>th</sup> September 2020 at Chennai Institute of Technology. "Teaser Glove for Women Safety".
- International Conference on Recent Developments in Material Science and Applications on 25<sup>th</sup> & 26<sup>th</sup> September 2020 at Chennai Institute of Technology. "Design, Analysis and Development of Epoxy Resin Made Omnidirectional Wind Turbine"