

SRI SAI RAM ENGINEERING COLLEGE
DEPARTMENT OF MECHANICAL ENGINEERING

Name: **K. Vetri Velmurugan**



Designation : Assistant Professor

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

Area of Specialization : CAD/CAM

Experience : Teaching – 13 Years (As on 30.06.2025)

: Industry- 2 Year 4 Months

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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:

S.No	College/Organization	Designation	Period	Total Period	Nature of work
1	Sri Sai Ram Engineering College	Assistant Professor	June 2012 to Till Date	13 Years 00 Months	Teaching
2	Genuine Technologies	Senior Design Engineer	Jan 2011 to Jun 2012	1 Years 5 Months	Design
3	Light Alloy Products Ltd	Design Engineer	Jun 2009 to Apr 2010	10 Months	Design

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
Doctorate	Ph.D	Material Characterization	Pursuing	Anna University	Anna University	NA	NA
PG	M.Tech.	CAD/CAM	2009	Vellore Institute of Technology	VIT University	79.3	I
UG	B.E.	Mechanical Engg.	2005	Pallavan College of Engineering	Anna University	72	I

Roles and Responsibilities(Institution Level):

1. Higher Education Cell - Executor

Roles and Responsibilities(Department Level):

1. Placement Facilitator
2. Class Coordinator
3. Project Coordinator
4. Vidwan, Irins Portal - Coordinator
5. NBA C4 Member, NAAC Criteria 5 - Coordinator

hBaja/mBaja - Coordinator

Achievements

International Journal Publications

Enhanced machining performance using a hybrid cryogenic CO₂ and TiO₂ nanofluid minimum quantity lubrication (Cryomql) system Published in Materials Research Express DOI: 10.1088/2053-1591/ADB7BB

Design and Fabrication of Solar Power Tiller Published in International Journal of Scientific Research in Engineering and Management DOI: 10.55041/IJSREM30844

Pneumatic Powered Drone Catcher Gun Published in International Journal of Scientific Research in Engineering and Management DOI: 10.55041/IJSREM30672

INVESTIGATING THE WEAR RESISTANCE OF ZN-CO-NI ALLOY COATINGS ON POLYMER SUBSTRATES Published in Journal of the Balkan Tribological Association

Influence of hBN nanofluid MQL on machining characteristics in turning of Inconel 625 Published in Materials Today: Proceedings DOI: 10.1016/J.MATPR.2023.08.247

Analysis of Structural, Optical, and Aquaphobic Properties of Zirconium Oxide Nanofilms by Varying Sputtering Gas Published in Advances in Materials Science and Engineering DOI: 10.1155/2022/9968485

Wear behavior analysis of vitallium metal matrix composite Published in Materials Today: Proceedings DOI: 10.1016/J.MATPR.2021.06.212

An overview on role of unconventional machining processes on different materials Published in Materials Today: Proceedings DOI: 10.1016/J.MATPR.2021.08.25

Liquid Crystal Display (LCD) and Organic Light Emitting Diode (OLED) Applications on Natural Fibre Reinforced Polymer Matrix Composites Published in Advances in Materials Science and Engineering DOI: 10.1155/2021/1934490

Experimental investigation and comparative assessment of PVD and CVD insert on dry machining of waspaloy Published in Materials Today: Proceedings DOI: 10.1016/J.MATPR.2020.12.1208

Fabrication and Machinability Study of Al2219 Metal Matrix Composites Reinforced with SiN/MoS₂ Nanoparticles Published in SAE Technical Papers DOI: 10.4271/2019-28-0170

Experimental Study on Tool Wear and Cutting Temperature during Machining of Nimonic C-263 and Waspaloy Based on Taguchi Method and Response Surface Methodology Published in SAE Technical Papers DOI: 10.4271/2019-28-0144

Experimental Investigation on Turning Characteristics of TiC/MoS₂ Nanoparticles Reinforced Al7075 Using TiN Coated Cutting Tool Published in SAE Technical Papers DOI: 10.4271/2019-28-0165

Dry Machining of Nimonic 263 Alloy Using PVD and CVD Inserts Published in Lecture Notes in Mechanical Engineering DOI: 10.1007/978-981-13-2718-6_18

Investigation of Parameters for Machining a Difficult-to-Machine Superalloy: Inconel X-750 and Waspaloy Published in Lecture Notes in Mechanical Engineering DOI: 10.1007/978-981-13-2718-6_19

A Study on the Turning Characteristics and Optimization of MOS₂p and SiCp-Reinforced Al-Si10Mg Metal Matrix Composites Published in SAE Technical Papers DOI: 10.4271/2018-28-0043

A Comparative Study on Machinability Characteristics in Dry Machining of Inconel X-750 Alloy Using Coated Carbide Inserts Published in SAE Technical Papers DOI: 10.4271/2018-28-0031

Parametric Study, the Process Benefits, Optimization and Chip Morphology Study of Machining Parameter on Turning of Inconel 718 Using CVD Coated Tool and Nd: YAG Laser Published in SAE Technical Papers DOI: 10.4271/2018-28-0029

Empirical and Artificial Neural Network Modeling of Laser Assisted Hybrid Machining Parameters of Inconel 718 Alloy Published in SAE Technical Papers DOI: 10.4271/2018-28-0023

Design Optimization of an Epoxy Carbon Prepreg Drive Shaft and Design of a Hybrid Aluminium 6061-T6 Alloy/Epoxy Carbon Prepreg Drive Shaft Published in SAE Technical Papers DOI: 10.4271/2018-28-0014

Acceptance tests and their results for 1st Pre-Series Cryoline (PTCL) of ITER Published in IOP Conference Series: Materials Science and Engineering DOI: 10.1088/1757-899X/171/1/012054

An Investigation of the Parametric Effects of Cutting Parameters on Quality Characteristics during the Dry Turning of Inconel 718 Alloy Published in Indian Journal of Science and Technology DOI: 10.17485/IJST/2016/V9I44/103314

Experimental Investigation and Optimization of Machining Parameters using Grey-Relational Analysis Approach and Fuzzy Based Taguchi Loss Function Method Published in Indian Journal of Science and Technology DOI: 10.17485/IJST/2016/V9I44/103313

Comparative Analysis of AHP and ANP Model for Lean Production System Justification Published in Applied Mechanics and Materials DOI: 10.4028/WWW.SCIENTIFIC.NET/AMM.591.197

Programs Attended:

Workshop / FDP attended / Training Programme:

1. Attended a workshop on “Recent trends in Optimization Techniques – RTOT 2017” at Velammal Engineering College, Chennai held on 21st April 2017.
2. Attended a workshop on “Value Engineering using ANSYS” in Sri Sai Ram Engineering College held on 19th August 2016.
3. Attended a workshop on “Advances in Design of Experiments (DOE)” in VIT University, Vellore held on 21st October 2016.
4. Attended a workshop on “Development, Manufacturing and Analysis of Advanced Composites” in SRM University held on 19th December 2015.
5. Attended a workshop on “Rapid Prototyping Technology and its applications to industries in engineering and healthcare” in VIT Chennai held on 22nd March 2014.
6. Attended one day Workshop on “Role of Lean Manufacturing on Organization Competitiveness”, Organized by Sri Sai Ram Engineering college Chennai on 28 th August 2014.
7. Attended a workshop on “Finite Element Analysis Tools and its Applications” Organized by Sri Sai Ram Engineering college Chennai on 19th July 2012.
8. Attended Faculty Development Program on “Automobile Engineering”, Organized by Sri Sai Ram Engineering College, Chennai from 29th November to 5th December 2017.
9. Attended Faculty Development Program on “Computer Aided Design and Usage of Software”, Organized by Sri Sai Ram Engineering College, Chennai from 4th August to 6th August 2016.
10. Attended Faculty Development Program on “Processing and Characterization of Composite Materials including Natural Fiber Re-inforced Composites”, Organized by Sri Sai Ram Institute of Technology, Chennai from 18th March to 31st March 2015.
11. Attended Faculty Development Program on “Advancement in Materials, manufacturing Processes and Management Systems”, Organized by Sri Sai Ram Engineering College, Chennai from 4th November to 16th November 2013.
12. Attended Training Program on “Automotive Technology”, in Sri Sai Ram Engineering College, Chennai Conducted on 12th and 13th September 2017.
13. Attended a two day Workshop on “Industry-Institution Interaction Event on Environment Management in Industrial Sectors-Status and Needs”, Organized by Sri Sai Ram Engineering College, Chennai on 24th & 25th July 2014.

14. Attended Quality Management and Audit Training, Organized by Sri Sai Ram Engineering College, Chennai Conducted on 22nd and 23th Feburary 2013.

PATENT DETAILS:

S. No.	Application No./ Design No.	Title	Status	Type
1	201941048055	<i>PORTABLE MILL WRIGHT FITTERS TABLE</i>	Published	Utility
2	202041049409	<i>Method And Apparatus For Controlling Vehicle To Avoid Accidents</i>	Published	Utility
3	202041049407	<i>Two-Stage Constant Ratio Powertrain</i>	Published	Utility
4	202241060607	<i>A Method for Design and Investigation of Compliant Mechanism in Robotic Gripper</i>	Published	Utility
5	202241077104	<i>CARBONATION-CALCINATION CYCLE INTEGRATED EXHAUST WITH ELECTROSTATIC PRECIPITATOR AND CATALYTIC CONVERTER</i>	Published	Utility
6	202341059266	<i>AN ECO-FRIENDLY NATURAL FIBER COMPOSITES FOR MARINE APPLICATIONS</i>	Published	Utility
7	202441014311	<i>DESIGN AND FABRICATION OF HYBRID POWER GENERATOR</i>	Published	Utility
8	202441015533	<i>VERTICAL AXIS WIND TURBINE (VAWT) INTEGRATED AIR PURIFICATION SYSTEM</i>	Published	Utility
9	425040-001	MINI CORN SHELLING MACHINE	Registered	Design
10	417740-001	WIRELESS AGRICULTURAL CULTIVATING MACHINE	Registered	Design