

**V.VELMURUGAN M.E.,(PhD)**

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91-9884461620



**Area of Specialization** : Smart & Composite Materials, Manufacturing, Finite Element Analysis, Mechanics, Industrial Engineering.

**Experience** : **Teaching-** 21 Years & 1 Month

**Patent** : **2** - Published (Application No:202141025442 A & 202341009150 A)

**Number of Workshops/ Conferences/ FDP** Workshop- 30

**Attended** : National/International Conference- 08  
FDP Attended:15

**Publication** : **Journal** : **International** : **08** / National : 08  
**Conference** : **International:** **12** / National: 05  
**Book chapter** : 2 (ISBN-978-93-87997-52-3)

**Membership** : **ISTE,IEE,IAENG,UAMAE,IFERP**

**Funded project** : **Received Rs: 8,26,500/-** for Study for identification and validation of test method for analysis of Tungsten Concentrate ,Scheelite( $\text{CaWO}_4$ ) and Wolframite [(Fe,Mn) $\text{WO}_4$ ].from BIS

<b>Name &amp; address of the employer</b>	<b>Post held</b>	<b>Date from</b>	<b>date to</b>
<b>Sri Sai Ram Engineering College, West Tambaram, Chennai-44</b>	Associate professor	27.07.2006	<b>Till date</b>
<b>Valliammai polytechnic college, Chennai</b>	Lecturer	26.11.2004	31.05.2006

<b>Examination passed</b>	<b>Branch/ Division</b>	<b>Institution /University</b>	<b>Percentage obtained</b>	<b>Year of passing</b>
<b>( PhD )</b>	Composite Materials	College of Engineering /Anna University	----	Pursuing (Thesis submitted )
<b>M.E</b>	Manufacturing Engineering	M.I.T/Anna University	7.2 CGPA	2007
<b>B.E</b>	Mechanical Engineering	Kongu engineering college /Bharathiyar university	72	2003
<b>HSC</b>	Biology	St. joseph's higher secondary school/State board	72.75	1999
<b>SSLC</b>	----	St. joseph's higher secondary school /State board	74.4	1997

**Employment details:**

**Educational/professional qualification:**

**Patent details: Title of the invention**

1. Composite LPG cylinder using GFRP with Al alloy material
2. Fiber-reinforced composites (FRC) for electric vehicle

## Publication Details:

- V.Velmurugan Published a paper titled” Engineered Hybrid Nanoclay-Infused Nano-Polymers for Multifunctional Anti-Corrosive Coatings “in Journal of polymers & composites, 2026, Volume 14.issue 1.
- Published a paper titled’ ’Characterization and strengthening mechanism of CNT/TiB<sub>2</sub> particulates added AZ91D composites” in the journal Materials Research Express in 2023, 10(3), 036504.
- Published a paper titled” Investigation of CI Engine Performance and Emission Characteristics of Biodiesel Blend with Aluminium Oxide “in International Journal of Vehicle Structures and Systems this link is disabled, 2022, 14(4), pp. 429–432.
- Published a paper titled” Effect of CNT/TIB<sub>2</sub> particle on mechanical, metallurgical behaviour of magnesium (AZ91D) composites’ Journal of Engineering Research (Kuwait), 2021, 2021.
- Published a paper on a Comparative study of mechanical and morphological analysis of NaOH treated and untreated banana fiber reinforced with an epoxy hybrid composite” in Materials Today: Proceedings 39, 861-867, January 2021.
- Published a paper titled” Evaluation of Mechanical Properties of Magnesium [AZ91] Reinforced with Carbon Nanotubes and Sic/Al<sub>2</sub>O<sub>3</sub> “in UGC listed journal.
- Published a paper titled” Analysis and Implementation of Productivity Improvement in Cylinder Head Rough Machining “in UGC listed journal.
- Published a paper titled “Experimental Study on the Performance, Emission Characteristics of C.I Engine Using Waste Cooking Oil “in UGC listed journal.
- Published a paper titled “Mechanical Property of Glass Fiber with Coir Fiber for Automobile Mudguard “in UGC listed journal.
- Published a paper titled “Design and Development of Braces for Flat Foot Ankle Injury Using Solid Works “in UGC listed journal.
- Published a paper titled “Design and analysis of GFRP- Al composite materials for the

replacement of LPG cylinder” in the international journal of Engineering and advanced technology in October 2019, volume 1.

- Published paper titled “Productivity improvement in the post-casting process of die casting parts” in the international journal of Research and analytical reviews in May 2019, volume 6, issue 2.

### **International & National Conference:**

- Presented the research article with title “Microstructures and enhanced mechanical properties of AZ91D alloy with the incorporation of TiB<sub>2</sub> particles” at International Conference on Multidisciplinary Research in Mechanical Engineering and Nanotechnology (ICMRMEN-2025) held during April 11th and 12th, 2025 at Department of Mechanical Engineering, Government Engineering College, Samastipur, Bihar, India.
- Presented the research article with title “ GNP+CNT effects and enhancements on the microstructure and mechanical properties of AZ91D matrix composite ” at International Conference on Multidisciplinary Research in Mechanical Engineering and Nanotechnology (ICMRMEN-2025) held during April 11th and 12th, 2025 at Department of Mechanical Engineering, Government Engineering College, Samastipur, Bihar, India.
- Presented a Paper entitled “The Production Planning Process for an auto Component in the Automobile Industry “in the SERB-sponsored International Conference on Recent Developments in Mechanical Engineering (ICRDME2019) held at S.A. Engineering College, Chennai on March 21- 22, 2019.
- Presented a Poster entitled “Design and Analysis of GPRF- AI Composite Material for the Replacement of LPG Cylinder” in the 10th International Conference on Advancements in Polymeric Materials (APM-2019), Innovations in Polymeric Product Development and Manufacturing, January (22-24), 2019 @ CIPET, Guindy, Chennai.
- Presented a Poster entitled “Characterization of TiNi / Al6061 Based shape memory alloy with N coating” at Sri Sai Ram Engineering College, Chennai during February 24-25, 2016.
- Presented a Paper entitled titled “Design and Fabrication of magnetorheological valve “at the national conference on 16 March 2007 at Sri Sairam Engineering College.
- Participated in the national conference on “Recent Advances in Product Design, Materials, And Manufacturing Systems “on 6 & 7 January 2006 at M.I.T, Chennai

### **Workshop/Conferences/FDP organized:**

- Organized three days Entrepreneurship Awareness Camp from 11 February to 13 February 2011 at Sri Sai Ram Engineering College Funded by the **Department of Science And Technology, Government of India.**
- Organized two days workshop on “Finite Element Analysis and its Industrial Applications “at Sri Sai Ram Engineering College in Sri Sairam engineering college on 6th & 7th August 2018
- Organized three days Entrepreneurship Awareness Camp from 12 July to 14 July 2017 at Sri Sai Ram Engineering College Funded by the Department Of Science And Technology, Government of India.
- The Department of Production Engineering Conducted 2nd National level Technical symposium “ SAIPROD UXIO” presents PRODIX on August 17, 2012 under the Banner of the Society of Production Engineers.

### **Workshop/ FDP attended:**

- Attended five Days faculty development program on ‘mechanical manufacturing & process optimizing ‘conducted by the NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING & RESEARCH INSTITUTE, CHANDIGARH from 25.06.2020 to 29.06.2020
- Attended five Days faculty development programme on the application of CAD tools in drawing courses conducted by Geethanjili College of Engineering & Technology, TELUGANA from 09.06.2020 to 13.06.2020.
- Attended webinar on stay ahead on product innovation & design thinking conducted by R.M.K ENGINEERING COLLEGE on 06.06.20.
- Attended five Days faculty development program on the concept of Thermodynamics, Fluid Mechanics & Dynamics for Mechanical Engineers conducted by Valliammai engineering college from 11.05.2020 to 15.05.2020.
- Attended webinar on beyond the Boundaries: reinventing horizons (INDUSTRY 4.0) conducted by Swamikesavan and institute technology, Jaipur on 17 May 2020
- Attended E-Learning programme on INDUSTRY 4.0 conducted by TATA STEEL in

May2020.

- Attended One Day faculty orientation session on study abroad opportunities conducted by EDUCATION MATTERS at R.M.K Engineering College on 27.08.2019.
- Attended One Day Seminar on "Recent Trends in Industry" conducted by AUFRRG Institute for CAD/CAM, Department of Mechanical Engineering, College of Engineering, Guindy during 12th December, 2018.
- Attended Two Day Workshop on "Finite Element Analysis and its Industrial Applications", Department of Production Engineering, Sri Sai Ram Engineering College, Chennai during 6th & 7th August 2018.
- Attended One Day Workshop on "Industrial Applications of Jigs, Fixtures and Press Tools", Department of Production Engineering, Sri Sai Ram Engineering College, Chennai on 19<sup>th</sup> March 2018.
- Attended two days DST-PURSE Sponsored national seminar on advances in manufacturing technology [amt-2018], Department of Manufacturing Engineering College of Engineering, Guindy, Anna University, Chennai – 600025 during 16th & 17th March 2018.
- Attended one-day Faculty Development Programme on "Glimpses Of Engineering Metallurgy" at C.K College of Engineering and Technology, Cuddalore and INDIAN INSTITUTE OF METALS, HUMAN RESOURCE DEVELOPMENT CENTRE (IIM-HRDC), KALPAKKAM on 17th December, 2016.
- Attended Two day National level workshop on "DESIGN OF EXPERIMENTS" at Sri Sai Ram Institute of Technology, Chennai during 24 & 25 th July, 2015.
- Attended Two day workshop on "HIGH-TEMPERATURE CERAMICS" at A.C.Tech Campus, Anna University, Chennai during the period 19 & 20th February, 2015
- Attended Industrial – Institution Event on "Environmental Management in Indian Sectors–Status and Needs" at Sri Sai Ram Engineering College, Chennai on August 28, 2014.
- Attended Two day workshop on "Advancements in Metal Forming" at Anna University, Coimbatore during 8-9<sup>th</sup> April, 2014.
- Attended AICTE SPONSORED FDP on "Advancements In Materials, Manufacturing Processes And Management Systems" at Sri Sai Ram Engineering College, Chennai

during 4 – 16th November, 2013

- Attended workshop on “RECENT TRENDS IN MATERIALS RESEARCH “at N.I.T, Trichy during 21&22 December2012.
- Participated in a national level technical level seminar on” OPTIMIZATION IN ENGINEERING AND MANAGEMENT RESEARCH “at Anna University, Chennai during 24&25 may 2012
- Participated in the one day workshop on “Renewable Energy “at Sri Sai ram Engineering College, Chennai on 24.02.2012
- Attended two days workshops on “SMART SENSORS FOR INDUSTRIAL PPLICATIONS “at Sri Sai ram Engineering College, Chennai during 1&2 December2011.
- Participated in faculty develop training programme on “FINITE ELEMENT ANALYSIS” at M.I.T, chrompet from 2-12-2011to 8-12-2011
- Participated in faculty develop training programme on” Recent Developments In Manufacturing And Management “at Sri Sai ram Engineering college, from 25- 07- 2011to 30-07-2011 .
  
- Participated in the one day workshop on “NANO COATING AND APPLICATIONS NANO COAT 2011“at ANNA University, Chennai on 30may2011.
- Participated in the one day workshop on “Emerging Technological Innovations In Welding “at Velammal Engineering college, Chennai on 01.11.2010 Attended Faculty Development Program on “Engineering Graphics” at Anand institute of higher technology, Chennai.
- Participated in the national level seminar on “Advances In Image Processing & Robotics on 25&26 February 2005 at M.I.T,Chennai
- Presented paper in national level technical seminar titled “Computational Fluid Dynamics “at national engineering college, Kovilpatti on 2 February 2002.
- Presented paper in national level technical seminar titled“2d Steady State Analysis of Heat Transfer in Electronic Chip “at R.V.S College of Engineering & Technology, Dindigul on 25 February 2002.

- Presented paper in national level technical seminar titled “Six Sigma Implementation in Manufacturing Industry “At Satyabhama institute of Science and technology, Chennai on 19 June 2002.
- Presented paper in a national level technical seminar titled” reverse engineering using rapid prototype “at College of Engineering, Thiruvananthapuram, Kerala on 13&14 September2001.

### **Trainings attended:**

- Undergone training on CNC MILLING at LMW machine works Coimbatore, from 25.08.2010 to 30.08.2010.
- Completed certificate course in “Thermal & CFD analysis conducted by AUFRG, Anna University Chennai from 03.12.2001to28.02.2002.
- Undergone in-plant training at AURO FOOD PRIVATE LIMITED Pondicherry, from 18.05.2001 to 28.05.2001
- Undergone in plant training at E.I.D PARRY, Cuddalore, from15.11.2000 to 25.11.2000