

Dr. VELMURUGAN PAVANAN



<b>Designation</b>	<b>Associate Professor</b>
<b>Email</b>	<a href="mailto:velbit66@gmail.com">velbit66@gmail.com</a>
<b>Contact No.</b>	<b>+91-9842953054</b>
<b>Joining Date</b>	<b>23.06.2022</b>

**Educational Qualifications**

Anna University (Govt). Chennai, Tamilnadu, India	Ph.D Mechanical	2017
Madurai Kamaraj University (Government), Madurai, Tamilnadu, India	M.E Thermal Engineering	2002
Bharathiyar University (Government), Coimbatore, Tamilnadu, India	B. E Mechanical	2000

**Past Experience**

Field	Positions held	Name of the institution	From	To
Industrial Experience	Design and Development Engineer	Veer -O- Metals Pvt Ltd (EOU ),Bangalore	12.05.2005	31.05.2006
Teaching Experience	Lecturer	Maharaja Engineering College,Tamilnadu	19.11.2002	10.05.2005
	Lecturer	Nandha Engineering College, <b>( Autonomous )</b> ,Tamilnadu	14.06.2006	07.05.2007
	Assistant Professor (Senior Grade )	Bannari Amman Institute ofTechnology, <b>( Autonomous )</b> Tamilnadu	04.07.2007	01.06.2015
	AssociateProfessor	SNS College of Technology <b>( Autonomous )</b> , Tamilnadu.	22.06.2015	25.5.2017
	Professor	Malla Reddy College of Engineering , Hyderabad,Telangana	07.06.2017	30.07.2020
	Professor	Shri Ram Murti Smarak College of Engineering andTechnology , Uttar Pradesh	15.09.2020	30.05.2022
	Associate Professor	Gopalan College of Enigeering & Management, Hoodi, White Field, BANGALORE	23.06.2022	Till Date

## Areas of Interest

- Internet of Things (IoT)
- Artificial Intelligence & Machine Learning
- Additive Manufacturing
- Renewable Energy Technology
- Fuel Cell Technology
- Engineering Thermodynamics
- Thermal Engineering
- Fluid Mechanics and Machineries
- Hybrid Vehicle Technology

## Responsibilities Held

- Ranking Cell Professor In charge - NIRF, ATTAL & Other Private Ranking Agencies.
- **Professor In charge - Industry Institute Partnership ( IIP Cell )** in Malla Reddy College of Engineering, Hyderabad, India
- Accreditation Process NAAC, NBA and Autonomous Coordinator - College level.
- **Controller of Examination (COE) for University Exam section** in MaharajaEngineering College, **from 2003 to 2005**, Avinashi, Tamilnadu, India.
- **Fraternity of Mechanical and Automotive Engineers (FMAE) Society - Faculty Coordinator** from June 2017 to 31.03.2020 in Malla Reddy College of Engineering, Hyderabad, Telangana State, India.
- **Society of Automotive Engineers (SAE) Club - Faculty In-charge** from Jan 2008 to May 2015 in Bannari Amman Institute of Technology, Tamil Nadu, India.
- Represented as Faculty Co-coordinator for Bannari Amman Institute of Technology in **SAE BAJA 2015** - Indore (MP), India.
- Represented as Faculty Co-coordinator for Bannari Amman Institute of Technology in **SAE SUPRA 2014** - Chennai, India.
- Established **Auto Component Lab, Automotive Electronics Lab and Fluid Mechanics Lab** in the year 2014-2015 for Mechanical Engineering Department,Bannari Amman Institute of Technology, Sathyamanagal, Tamilnadu, India.
- **NSS Program Officer** from Jan 2009 to 2012 in BIT, Sathyamanagal, Tamilnadu,India.
- **Deputy Warden** for the Gents hostel from Aug 2007 to March 2009 in BIT, Sathyamanagal, Tamilnadu, India.
- **ISTE convention Hospitality In-charge** for the XII International Student ConventionChapter in BIT, Sathyamanagal, Tamilnadu, India.
- Acted as **Chair Person** in National & International Conferences.
- **Question paper setter** for universities – VTU , ANNA University, AKTU - UP and Autonomous institutions.
- **External DCS – VTU –Karnataka , Chennai Representative (AUR)** for various Engineering Colleges.
- **External Evaluator for** VTU – Karnataka , Anna University- Chennai, JNTUH -Hyderabad.

## Professional Memberships

- **ISTE** - Indian Society for Technical Education - **LM 71338**
- **IAENG** - International Association of Engineers - **213945**
- **IRED** - Institute of Research Engineers and Doctors - **SNM1010005926**

## Subjects Handled

### UG Programme:

1. Artificial Intelligence & Machine Learning
2. Elements of Aeronautics
3. Additive Manufacturing
4. Engineering Thermodynamics
5. Thermal Engineering
6. Fluid Mechanics and Machineries
7. Aircraft Propulsion

## B.E., M. E, PhD Projects guided

- **B. E & M. E :** More than 12 projects

## PATENT JOURNAL PUBLISHED

- 1. Title** : **INTERACTIVE SMART MIRROR WITH PERSONAL HEALTH ANALYTICS**  
Design Number : 409160-001  
Date of Publication : 09/05/24  
Status : Design Patent
- 2. Title** : **Intelligent Display Board and a System to Display Data Received Over a Network**  
Application Number : 201841010055  
Date of Publication : 06/04/2018  
Status : Published  
Patent Link  
[http://www.ipindia.nic.in/writereaddata/Portal/IPOJournal/1\\_2600\\_1/Part-1.pdf](http://www.ipindia.nic.in/writereaddata/Portal/IPOJournal/1_2600_1/Part-1.pdf)
- 3. Title** : **Seismic Isolator device for Seismic Protection**  
Application Number : 201841027780 ADate of  
Publication : 03/08/2018 Status :  
Published  
Patent Link  
[http://www.ipindia.nic.in/writereaddata/Portal/IPOJournal/1\\_2639\\_1/Part-1.pdf](http://www.ipindia.nic.in/writereaddata/Portal/IPOJournal/1_2639_1/Part-1.pdf)
- 4. Title** : **Horizontal Axis, Cam Guided, Telescopic blade, Yaw Controlled Wind Mill**  
Application Number : 201841033956 ADate of  
Publication : 28/09/2018  
Status : Published

**5. Title : Process of finding a route by detective Node in a disaster environment**

Application Number : 201941005406 A Date of Publication : 22/02/2019 Status :

Published

Patent Link

[http://www.ipindia.nic.in/writereaddata/Portal/IPOJournal/1\\_4714\\_1/Part-1.pdf](http://www.ipindia.nic.in/writereaddata/Portal/IPOJournal/1_4714_1/Part-1.pdf)

**INTERNATIONAL JOURNAL PUBLISHED**

1. Karthikeyan P, **Velmurugan P**, George, AJ, Ram Kumar, R & Vasanth, RJ, „**Experimental investigation on scaling and stacking up of proton exchange membranefuel cells**”, International Journal of Hydrogen Energy, (**ELSEVIER**) vol. 39, pp.11186- 11195. ISSN:0360-3199. **2014 -Impact Factor** - **3.313.**  
<https://doi.org/10.1016/j.ijhydene.2014.05.086>
2. Velmurugan P, **Laxshmi Narayanan**, „**Optimization of Design And Operating Parameters For Enhancing The Performances Of Pemfc With Serpentine FlowFields**” - International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN (P): 2249-6890; ISSN (E): 2249-8001 Vol. 7, Issue 4, **Aug2017**,447-456.  
[https://scholar.google.com/citations?view\\_op=view\\_citation&hl=en&user=18xR3yEAAA&citation\\_for\\_view=18xR3yEAAAJ:u-x6o8ySG0sC](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=18xR3yEAAA&citation_for_view=18xR3yEAAAJ:u-x6o8ySG0sC) AJ&
3. **Velmurugan P**, Laxshmi Narayanan, „**Optimization of various Parameters for the Performance Enhancement of PEM Fuel Cell**” - International Journal of Science and Technology, Vol11(1),**January2018**.  
<https://pdfs.semanticscholar.org/f1d7/fbe0c333b555cf53870b094b6b66cb60da0.pdf>
4. **Velmurugan P**, K G. Thirugnanasambantham , Ramesh Raju , T. Sankaramoorthy , A. Kannagi , M. Chaitanya Kishore Reddy , V. Sai Koushik Chary , M.A. Mustafa and V.Ramesh Chandra **“Degradation mechanism for high-temperature sliding wear insurface-modified In718 superalloy”** -Cogent Engineering, **TAYLOR & FRANCIS(2018)**, 5: 1501864 <https://doi.org/10.1080/23311916.2018.1501864>.
5. Laxshmi Narayanan, **Velmurugan P**, Karthikeyan Palaniswamy “**Interdigitated Flow Channel on a Proton Exchange Membrane Fuel Cell Investigated Using the Response Surface Methodology**” **Transactions of FAMENA**, Vol. 43 No. 2, **2019**.  
<https://doi.org/10.21278/TOF.43205>.
6. **P.Velmurugan**, Dr.A.Kannagi, Dr.P.John Paul **“Multi Slot TMI Measure Based Machine Scheduling for CNC Applications with Improved Data Security”** - Journal of Advanced Research in Dynamical and Control Systems - Vol.11, Issue 12, **2019**.
7. **Dr.P.Velmurugan et.al** **“Thermal performance and analysis of a solar water heating system with heat pipe evacuated tube collector”** - International Journal of Research and Analytical Reviews e ISSN 2348 -1269, Print ISSN 2349-5138 - Pg - 228 - 231, **2019**.
8. **Dr.P.Velmurugan et.al** **“Design And Cfd Analysis Of Hair Pin Heat Exchanger at Different NaNo Fluids”** - International Journal of Research and Analytical Reviews e ISSN 2348 -1269, Print ISSN 2349-5138 - Pg - 244 - 249, **2019**
9. **Dr.P.Velmurugan**, Dr.V.Lakshminarayanan, Jobin.C.Varghese, **“Performance Study For 49 cm<sup>2</sup> Multi Pass Flow Channel Of PEMFC”** - International Journal Of AdvanceEngineering And Research Development, E-ISSN (O): 2348-4470 P-ISSN (P): 2348- 6406Scientific Journal Of Impact Factor (SJIF): 5.71.

**10. P. Velmurugan**, P. Rathnakumar, J.Ramesh, "Design of I.C. Engine Air Cooling Fins Using FEA Analysis" - International Journal of Innovative Research Explorer, ISSN NO: 2347-6060, Volume 4, Issue 6, **Nov/2017**.

**11. P.Velmurugan**, C. Mageswaran, A. Lakshmiyothi, S. Sashikumar, " Heat transfer Enhancement in Vertical Narrow Plates by Natural convection" - International Journal Of Current Engineering And Scientific Research (Ijcesr)Issn (Print): 2393-8374, (Online):2394-0697, Volume-5, Issue-1, **2018** Doi: 10.21276/Ijcesr.2018.5.1.5

**12. P. Velmurugan**, A. Karthikeyan, R. P. Kumar, I. Prasanna , "Superior Equipment AndVarnish Outlook For Gas Turbine Applications" - International Journal Of Current Engineering And Scientific Research ISSN (PRINT): 2393-8374, (ONLINE):2394- 0697, VOLUME-5, ISSUE-1, **2018** DOI: 10.21276/ijcesr.2018.5.1.1

**13. Md Nizam Raza , Dr. Velmurugan P. , Mr. Vikash Kumar , "Thermal performance andanalysis of a solar water heating system with heat pipe evacuated tube collector" - International Journal Of Research and Analytical Reviews e ISSN 2348 - 1269, Print ISSN2349-5138 , **2018**.**

**14. P.Velmurugan**, Kannagi, Varsha, "Superior Fuzzy Enumeration Crop Prediction Algorithm For Big Data Agriculture Applications" - Materials Today: Proceedings -(Elsevier) Published on **13 March - 2021**. <https://doi.org/10.1016/j.matpr.2021.02.578>.

**15. T. Arunkumar, Velmurugan Pavanan , Vijay Anand Murugesan, "Infuence of Nanoparticles Reinforcements on Aluminium 6061 Alloys Fabricated via Novel UltrasonicAided Rheo-Squeeze Casting Method" - Metals and Materials International (SPRINGER )Published on **29 May 2021**.**

#### FUND RECEIVED FROM AICTE

(Under Department of Higher Education, Ministry of Human Resource Development(MHRD) - India.)

1. Grant Received for conduct of short Term Training Programme (STTP) under AQIS 2019-20 during the financial year 2020-21 - **Under the Title - Selection of Nano Materials forEnergy Harvesting and Storage**, Amount Sanctioned - **Rs. 4.29,000 / -** (Rupees Four Lakh Twenty Nine Thousand only).
2. Research Proposal Scheme - Under the Supervisor Dr P.Karthikeyan, Department ofScience and Technology, Government of India, New Delhi, Amount Sanctioned **Rs.13.00,000 /-** (Rupees Thirteen Lakhs only) Project Sanction No: SR/S3/CE/006/2011,2011.

## **SEMINAR / FDP / INTERNSHIP / WORKSHOP ATTENDED**

<b>Sl. No.</b>	<b>Event</b>	<b>Duration</b>	<b>Major Sponsor(s)</b>	<b>Level (International / National)</b>
1	Emerging Trends in Mechanical Engineering and Sciences (ETIMES -2007) - National Conference.	2 Days	CSIR, DRDO	National
2	Optimization Techniques in Engineering Sciences & Technology(OPTEST 2008)	2 Days	CSIR, DRDO, TNSTC	National
3	Optimization Techniques in Engineering Sciences & Technology(OPTEST 2009)	2 Days	CSIR, DRDO	National
5	International Conference	2 Days	SNSCT	International
6	Patenting your Invention - Seminar	1 Day	SNSCT	National
7	International Conference - ICTIMES2017	2 Days	MRCE, HYDERABAD	International
8	FDP - Refresher Programme on "Engineering Drawing - An effectiveTeaching Methodology" - 2019	6 Days	AICTE-ISTEMREC, Hyderabad	National
9	FDP -Non-Conventional EnergyResources - 2019 ( online)	12 Weeks	IIT - Madras( UNDER AICTE )	National

10	FDP - Selection of Nano materials for Energy Harvesting and Storage Application - 2019 ( online)	4 Weeks	IIT - Madras( UNDER AICTE )	National
11	STTP - Internet of Things - April -2020	5 Days	NITTTR - Chandigarh( UNDER MHRD )	National
12	FDP - Additive Manufacturing May -2020	1 Week	CMR Technical Campus - Hyderabad	National
13	STTP - Modeling and Simulation using MATLAB - May - 2020	5 Days	NITTTR - Chandigarh ( <b>UNDER MHRD</b> )	National
14	Internship - Robotics ( Jul - Aug -2020)	4 weeks	Enovate Skill NITTTR - Start - Up Chandigarh	National
15	FDP - Artificial Intelligence - Oct 2020	5 Days	IIPM - Bengaluru	National
16	FDP- 3D Printing & Design - Feb 2021	5 Days	IIIT - Trichy	National
17	Seminar – Value Engineering and Design Thinking for Product and Process – 15 <sup>th</sup> March - 2023	1 Day	AICTE - Vidhya Jyothi Institute of Technology	National
18	Teaching Learning and Assessment Process as per OBE in Higher Education Institutions in line with NEP 2020" — 02 - 03 Sep - 2022	2 Days	NAAC - Sahyadri College Engg & Management	National
19	Masterclass on NVIDIA - AI Hardware - (15.07.2024 - 05.08.2024 )	Online – 21 Days	Pantech e-Learning Pvt Ltd Chennai	National

**NATIONAL PROGRAMME ON TECHNOLOGY ENHANCED LEARNING (NPTEL) -**

**GOVERNMENT OF INDIA ONLINE CERTIFICATION COURSE - CREDIT BASED COURSE**

1. **Fundamentals of Additive Manufacturing** completed -July - Oct - 2021 (12 weeks course) - Conducted by IIT Madras (Funded by the Ministry of HRD, Govt. of India). -(03 Credits)
2. Introduction to Industry 4.0 and Industrial Internet of Things **completed - Sep**  
- Dec - 2020 (12 weeks course) - Conducted by IIT Madras (Funded by the Ministry of HRD, Govt. of India). - (03 Credits)
3. **Non- Conventional Energy Resources** completed during Jan -April 2019 (12 weeks course) - Conducted by IIT Madras (Funded by the Ministry of HRD, Govt. of India) - (03 Credits)
4. **Selection of Nano Materials for Energy Harvesting and Storage Application** completed during July-Aug 2019 (4 weeks) - Conducted by IIT Madras (Funded by the Ministry of HRD, Govt. of India). (01 Credit)

