

Dr. VELMURUGAN PAVANAN



Designation Associate Professor

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Joining Date 23.06.2022

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, (Autonomous),Tamilnadu	14.06.2006	07.05.2007
	Assistant Professor (Senior Grade)	Bannari Amman Institute ofTechnology, (Autonomous) Tamilnadu	04.07.2007	01.06.2015
	AssociateProfessor	SNS College of Technology (Autonomous), 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 Maharaja Engineering 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, Sathyamanagalam, Tamilnadu, India.
- **NSS Program Officer** from Jan 2009 to 2012 in BIT, Sathyamanagalam, Tamilnadu, India.
- **Deputy Warden** for the Gents hostel from Aug 2007 to March 2009 in BIT, Sathyamanagalam, Tamilnadu, India.
- **ISTE convention Hospitality In-charge** for the XII International Student Convention Chapter in BIT, Sathyamanagalam, 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

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

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

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=18xR3yEAAAAJ: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/fbe0c333b555cfd53870b094b6b66cb60da0.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 ofAdvanced 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 andAnalytical 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 cm² 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. Lakshmijyothi, 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, "Influence 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

Sl. No.	Event	Duration	Major Sponsor(s)	Level (International / National)
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, TNSCT	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 (UNDER MHRD)	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 th 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 ofHRD, 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. ofIndia) - (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 theMinistry of HRD, Govt. of India). (01 Credit)

