



**Dr. Jeyanthi. S, Ph.D.**

Professor, School of Mechanical Engineering,  
Vellore Institute of Technology, Chennai campus,  
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#851-900 in QS World UniversityRankings-2024.

VIT is the 8th best University Category, 11th Best  
Research and the 11th best Engineering institution of  
India in 2023 NIRF Ranking

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## **Education**

- B.E. (Mechanical Engineering), University of Madras ,1995-1998
- M.E. (CAD) Satyabhama university, Chennai, 2004-2006.
- Ph.D. (Composites and Impact analysis) Anna University, Chennai, 2010-2013.

## **Research Specialties**

- CRASH analysis using LS DYNA
- Composite Materials, Vibro-Acoustic characterization of polymers, Electronics materialsand EMI shielding polymers.
- Lightweight multifunctional nano materials

## **Experience (17 years)**

- 2015 Jan to till date-Professor at VIT University Chennai.
- 2006 to 2015-Assistant professor at Jeppiaar Engineering college, Chennai.

## **Professional Membership**

- MISTE-Life Member (Indian Society for Technical Education-ISTE)
- MIE-Life Member (Institution of Engineers-IE-India)
- Life member-Acoustical Society of India ASI

## **Funded PROJECTS &PATENTS**

- Rigid foam recycling-Waste to product-Defense Research and Development Organisation DRDO- Govt of INDIA-PI-Rs 30 lakhs(Ongoing)
- 3D Digitalization of Acoustical Behavior of Musical Pillars in Tamil Nadu Temples, Rs 32 Lakhs,2021-2024, Govt of India,DST - SHRI –Co-PI-(Ongoing)
- Development of Wearable polymer sensors- Govt of India,DST -Rs 23 Lakhs-PI-(On going)
- DST –SERB” Development and acoustic testing of eco-friendly materials from agricultural waste”-PI Rs 15 Lakhs (Completed).
- Seed fund from VIT “Development of functionalized conductive Nano filler reinforced sustainable foam for EMI Shielding Applications” Rs 5 Lakhs, PI(Completed).
- Published a patent BROADBAND SOUND ABSORBER - A NOISE CONTROL DEVICE USING INTEGRATED PASSIVE ELEMENTS “202041035046 A.

## **Workshop and Training programme organized**

- Convener of the International conference ICONACES 2022-October 22 -23 during 2022.
- Two-day Technical Development training programme on brake NVH to RANE Employees, Feb. 2021
- Three-day workshop on Basics of Noise and Vibration- JUNE 2020
- Two-day Technical Development training programme on Noise Vibration and Harshness to RANE Employees, Feb. 2020.
- DST SERB sponsored (Rs 1 Lakh) 2-day workshop on Contemporary issues on Advanced Materials for Noise and Vibration Applications, during Feb.1-2, 2019-CO PI
- Three-day Technical Development training programme on Noise Vibration and Harshness to VALEO Employees, May 2019.
- Three-day Technical Development training programme on Strength of materials to VALEO Employees, Nov. 2019.
- One day workshop on Engg Failure analysis-Oct-2019.
- Two-day workshop on Finite element analysis-May 2020.

## **Awards/Achievements/Recognition**

- Received Research Award and cash prize for the category of paper publication, patent and funded project during the year 2019-2020 from VIT University, Chennai.
- Acted as Session Chair for 2<sup>nd</sup> ICONACES 2021,Technology, NCSET 2017 conducted during 2-3 oct 2021.
- Acted as a guest editor for the Computation Challenges for engineering problems <https://www.ijsmdo.org/component/toc/?task=topic&id=1438>
- Received Best paper award for paper titled “An Experimental Investigation on Acoustical Properties of Organic PU Foam Reinforced with Nanoparticles Fabricated by Hydrothermal Reduction Technique to Emerging Applications” in International conference, ICMmm’2020.
- Received Research Award and cash prize of Rs. 15,000/- during the year 2018-2019from VIT University, Chennai.
- Received Research Award and cash prize of Rs. 15,000/- during the year 2017-2018 from VIT University, Chennai.
- Received Research Award during the year 2016-2017 from VIT University, Chennai.

- Received Research Award and cash prize of Rs. 12,000/- during the year 2015-2016 from VIT University, Chennai.
- Faculty In-Charge for Composite and polymer Laboratory.

## RESEARCH PUBLICATION DETAILS

- Jeyaguru S.; Thiagamani S.M.K.; Siengchin S.; **Subramanian J.**; Ebrahimnezhad-Khaljiri H.; Sanjay M.R.; Khan A.; Abuthakeer S.S.; Rajesh S.; Alromaizan A.N” Effect of various weaving architectures on mechanical, vibration and acoustic behavior of Kevlar-Hemp intra-ply hybrid composites” Composites Part A: Applied Science and Manufacturing, Vol:176, DOI: 10.1016/j.compositesa.2023.107845-**Impact factor:8.4**
- Vinoth kumar,**Jeyanthi** ” Experimentation, simulation, and statistical analysis of nanofillers reinforced bio-based polyurethane foam for acoustical applications” Polymer engg and science,DOI: 10.1002/pen.26273(2023)-**Impact factor:3.4**
- Prince Jeya Lal Lazar, **Jayanthi Subramaniyan**, Elango Natarajan, Kalaimani Markandan, S. “Anisotropic structure-property relations of FDM printed short glass fiber 2 reinforced polyamide TPMS structures under quasi-static compression” Journal of Materials Research and Technology,https://doi.org/10.1016/j.jmrt.2023.05.167(2023)- **Impact factor:6**
- Nivethitha,**Jeyanthi**”Polyvinylidene fluoride, an advanced futuristic smart polymer material: A comprehensive review “Polymers for advanced technologies ,32 (1), 12. Available at: https://doi.org/10.1002/pat.5914(2022)- **Impact factor:3.**
- Selvaraj, **Jeyanthi**” A Comparative Study on Bio-Based PU Foam Reinforced with Nanoparticles for EMI-Shielding Applications “Polymers, Vol:14, Issue: 16, DOI: 10.3390/polym14163344, (2022) **Impact factor:5.**
- Selvaraj, **Jeyanthi** “A comparative study of smart polyurethane foam using RSM and COMSOL multiphysics for acoustical applications: from materials to component”, Journal of Porous Materials, DOI: 10.1007/s10934-022-01362-7, (2022). **Impact factor:2.6**
- **Jeyanthi**, Durham Nivedita. Venkatachalam, Rohan Singh, Gaurav Sangwan” An Experimental Investigation and Optimization of Electromagnetic Interference Shielding Effectiveness of Hybrid Epoxy Nanocomposites” Journal of Electronic Materials, https://doi.org/10.1007/s11664-022-09656-x(2022). **Impact factor:2.8**
- S. Jeyaguru, S. M. K. Thiagamani, H. Pulikkalparambil, S. Siengchin, **J. Subramaniam**, S. M. Rangappa, C. Muthukumar, S. Krishnasamy, Mechanical, acoustic and vibration performance of intra-ply Kevlar/PALF epoxy hybrid composites: Effects of different weaving patterns Polym. Compos. 2022, 1. https:// doi.org/10.1002/pc.26665, **Impact factor:5**
- Chinnareddy,**Jeyanthi.s**”Development and analysis of eco-friendly multi-functional materials”Materialstodayproceedings,Oct2021. //doi.org/10.1016/j.matpr.2021.07.400.
- Elammaran jayamani,**Jeyanthi**“Effect of chemical treatments on polarization and dielectric properties of Kumpang wood reinforced epoxy composite”https://doi.org/10.1016/j.matpr.2021.05.606
- Yuvaraj,**Jeyanthi**,Lenin Babu Mailan Chinnapandi and Jeyaraj Pitchaimani,Experimental and numerical investigation on sound absorption characteristics of 3Dprintedcoupled-cavity integrated passive element systems, 12 (2021), 10, EDP Sciences, https://doi.org/10.1177/14613484211042157.

- Yuvaraj, **Jeyanthi**, Lenin Babu Mailan Chinnapandi and Elammaran Jayamani, Design and simulation of multilayer hybrid foam material for acoustic application, International Journal for Simulation and Multidisciplinary Design Optimization, 12 (2021), 10, EDP Sciences, <https://doi.org/10.1051/smdo/2021012>.
- Gopalan, Suthenthiraveerappa, david, **Jeyanthi**, Annamalai, A.R., Jen, C.-P. "Experimental and Numerical Analyses on the Buckling Characteristics of Woven Flax/Epoxy Laminated Composite Plate under Axial Compression. Polymers 2021, 3, 995. <https://doi.org/10.3390/>, March 2021- **Impact factor: 5**
- **Jeyanthi**, venkatachalam, manshu guptha, "An Investigation of EMI Shielding Effectiveness of Organic Polyurethane Composite Reinforced with MWCNT-CuO- Bamboo Charcoal Nanoparticles" Journal of ELECTRONIC MATERIALS, <https://doi.org/10.1007/s11664-020-08622-9>, Jan 2021, **Impact factor: 2.6**
- Atul S Takalkar; Lenin Babu Mailan Chinnapandi; G Mathan; S **Jeyanthi** "Investigation of deep drawing of lightweight bimetallic Al1050/SS304 sandwich composite cup" Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, DOI: 10.1177/1464420720964944, **Impact factor: 3.4**
- Vinoth, **jeyanthi** "An Experimental Investigation on Acoustical Properties of Organic PU Foam Reinforced with Nanoparticles Fabricated by Hydrothermal Reduction Technique to Emerging Applications" Inst. Eng. India Ser. D <https://doi.org/10.1007/s40033-020-00238-x>, Oct 2020
- Yuvaraj, **Jeyanthi**, Kadam "Influence of Magnesium Hydroxide Fillers on Acoustic, Thermal, and Flame Retardant Properties of PU Foam" Lecture notes in mechanical engineering, springer 2020, [https://doi.org/10.1007/978-981-15-4745-4\\_35](https://doi.org/10.1007/978-981-15-4745-4_35)
- Yuvaraj, **Jeyanthi**, Kadam "Influence of Magnesium Hydroxide Fillers on Acoustic, Thermal, and Flame Retardant Properties of PU Foam" Lecture notes in mechanical engineering, springer 2020, [https://doi.org/10.1007/978-981-15-4745-4\\_35](https://doi.org/10.1007/978-981-15-4745-4_35)
- Yuvraj, **Jeyanthi** "Acoustic performance of countersunk micro-perforated panel in multilayer porous material" Building acoustics, 2019. <https://doi.org/10.1177/1351010X19886588>
- Yuvraj, **Jeyanthi** "Inverse Acoustical Characterization of Natural Fiber Loaded Flexible Polyurethane Foam" Jour of Adv Research in Dynamical & Control Systems, Vol. 11, 06- Regular Issue, 2019
- Yuvraj, **Jeyanthi** "Experimental and finite element approach for finding sound absorption coefficient of bio-based foam" Journal of vibroengineering, September 2019, volume 21, issue 6
- Atharva, jashwanth, **Jeyanthi** "Development of Natural Fiber-Based Aluminum Composites for Electromagnetic Interference Shielding Applications" International Review of Mechanical Engineering, Vol. 13, N. 6, 2019.
- Yuvraj, **Jeyanthi**, lenin babu "Sound absorption properties of castor oil based polyurethane foam with natural fiber" Materials Today: Proceedings 5 (2018) 23534– 23540.
- Shreyes, **Jeyanthi** "Numerical and experimental analysis of spinning of gas spring tube" Materials Today: Proceedings 5 (2018) 18176–18186.
- Jithesh shukla, **Jeyanthi** "Design and Analysis of Lifting Pusher Drop Axle for Heavy

Commercial Vehicle” SAE Int. J. Commer. Veh. 10(1):2017, doi:10.4271/2017-01-9176

- Yuvraj,**Jeyanthi**,”Numerical and experimental characterization of acoustic porous material – A Review” International Journal of Mechanical Engineering and Technology ,Volume 8, Issue 8, August 2017, pp. 919–930.
- Yuvraj,vijay,**Jeyanthi**” Study of Sound Absorption Properties on Rigid Polyurethane Foams using FEA” Indian Journal of Science and Technology, Vol 9(33), DOI: 10.17485/ijst/2016/v9i33/101342, September 2016
- Saiteja,**Jeyanthi**“Fuzzy Logic Simulation for Brake-by-Wire Control System” Springer Lecture Notes in Mechanical Engineering, DOI 10.1007/978-981-10-1771-1\_18,2017.
- Arunkumar.**Jeyanthi**” Design and analysis of impedance tube for sound absorption measurement” ARPN Journal of Engineering and Applied Sciences,12,(5)2017
- Shreyash Satish Runwala S. Jeyanthi and Prasad N” Impact Analysis of Side Door Beam in Automobile Using FEA” International Journal of Control Theory and Applications,VOL 9,2016,395-404.
- Balaji,sasikumar,Jeyanthi”Characterisation of Hollow Glass Fibre Reinforced Vinyl- Ester Composites”., Indian Journal of Science and Technology, Vol 9(48, December 2016.
- R.P.Subin, Dr.S.Jeyanthi, Dr.S.Rajesh” Automatic Plastic Waste Management System Using MAT LAB in Robotic arm” Applied Mechanics and Materials,2015.
- Dr. S. Jeyanthi, J. Paul Chandra Kumar, N. Rajesh Kumar,. Dhinakaran “An Investigation on Dynamic Mechanical Analysis and Low velocity Impact Analysis of Natural Thermoplastic Composite Frontal Beams” International Journal of Applied Engineering Research, Volume 9, Number 23 (2014) pp. 13709-13718.
- Jeyanthi, S. and Jancirani, J. “Development of natural long fiber thermoplastic composite for automotive frontal beams”, Indian Journal of Engineering and Material Sciences– Vol 21,october 2014,pp.580-584.
- Jeyanthi, S and Jancirani, J. “High velocity Impact Analysis of the Thermoplastic Bumpers In Automobiles”, Journal of Scientific and Industrial Research – Vol 73,January 2014,pp.66-68.
- Jeyanthi, S. and Jancirani, J. “Influence of natural long fiber in mechanical, thermal and recycling properties of thermoplastic composites in automotive components”, International Journal of Physical Sciences, Vol.7, No.43, pp.5765-5771, 2012.
- Jeyanthi, S. and Jancirani, J. “A Numerical Performance of Automobile Front Beam by Finite Element Analysis”, International Review of Mechanical Engineering, Vol.6, No.7, pp.1546-1550, 2012.
- Jeyanthi, S. and Jancirani, J. “Improving Mechanical Properties by KENAF Natural Long Fiber Reinforced Composite for Automotive Structures”, Journal of Applied Science and Engineering, Formerly-Tamkang Journal of Science And Engineering, Vol.15,No.3, pp.275-280, 2012.
- Jeyanthi, S. and Jancirani, J. “Effect of natural long fiber in thermoplastics for Automotive Structures”, International Journal of Emerging trends in Engineering and Development, Vol. 3, pp.82-89, 2011.
- Jeyanthi, S. and Jancirani, J. “Improving Mechanical Properties by Hybrid Long Fiber Reinforced Composite for Front Beam of Automotive”, European Journal of Scientific Research, Vol.60, No.2, pp.195-199, 2011.

- Jeyanthi, S. and Jancirani, J. “Mechanical properties of hybrid long fiber reinforced composite for passenger car bumper beams”, International Journal of mechanical and automobile engineering, Vol.21.pp 14-17, 2012.

- Jeyanthi, S. and Jancirani, J. “Impact Analysis of Automobile Bumper Beams to Improve Crashworthiness Using FEA”, Wulfenia Journal, Vol.19, No.8, pp.227-241, 2012.
- Dilipsingh,Jeyanthi.S,” Automated Wheel Assembly System Using PLC” International Journal of Emerging Technology and Advanced Engineering, Volume 3, Issue 10, October 2013.
- K.Sivakumar,S.Rajesh,S.Jeyanthi”An approach in energy harvesting in permanentmagnet as an engine”,International conference on science,engineering and management research- ICSEMR-2014-Veltech multitech –Nov 27-29-2014,
- Jeyanthi, S. A.Johny vargheese, , S.Rajesh” The Dynamic Mechanical Analysis and Recycling Properties of Bio Composites as Automotive Structural Beams ” , International conference on green technology for environmental pollution ,prevention and control,IGGTP2014,NIT,Trichy, Sep 27,29, 2014 .
- R.P.Subin, Dr.S.Jeyanthi, Dr.S.Rajesh” Automatic Plastic Waste Management System Using Statistical Texture Analysis” , International conference on green technology for environmental pollution ,prevention and control,IGGTP2014,NIT,Trichy, Sep 27,29,2014 .
- Jeyanthi, S. , Jancirani, J, S.Rajesh” The Influence Of Organic Brake Pad’s Thermal Conductivity On Passenger Car Brake System Efficiency” , International Colloquium on Materials, Manufacturing and Metrology, ICMMM 2014 IIT, Madras,India, Aug 8,9, 2014 .
- Jeyanthi, S. and Jancirani, J. “Development of kenaf long fiber biopolymer composites for frontal beams in automobiles”, Asian symposium on material processing, ASMP, IIT, Madras,India, Aug 30,31, 2012.
- Jeyanthi, S. and Jancirani, J. “Influence Of Natural Fibers In Recycling Of Thermoplastics For Automotive Components”, IEEE-International Conference On Advances In Engineering, Science And Management (ICAESM -2012), EGS Pillay Engineering College, India, pp.211-214, March 30, 31, 2012.Published in IEEE Explorer.
- Jeyanthi, S. and Jancirani, J. “A Numerical performance of automobile front beam by quasi static analysis ,International conference on mathematical applications in engineering and business management, ICMEB 2012,Loyola college, Tamilnadu India, pp.228-231, 2012.
- Jeyanthi, S. and Jancirani, J. “Development of ecofriendly thermoplastics for automotive components”, International Conference On Green technology and energy conservation, Greentech-20011 Sathyabama University, Chennai, Tamilnadu, pp.47-50, Dec.15-17, 2011.Published in IEEE Explorer.
- Jeyanthi.S,Gayathridevi”CFD Modeling of the In-cylinder flow in direct –injection diesel engines for different piston heads” National conference on emerging trends in Engineering and Technology, INDIAN SOCIETY OF TECHNICAL Education(ISTE),MAY 2007.

- Jeyanthi.S,Gayathridevi,” Prediction of weld bead parameters for laser beam welding” International conference on advanced design and manufacturing, Sethu Institute of Technology, Tamilnadu, Aug 2007.

## **BOOK CHAPTERS**

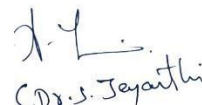
- Rajalakshmi,jeyanthi,pradeep,”Prediction of acoustic performance using machine learning techniques,” Data Science and Data Analytics ,CRC PRESS,Tayler and Francis-2021, ISBN: 978-1-003-11129-0.
- Atharva,Jeyanthi”Design and development od acoustic meta material using 3D printing” Advances in Industrial Machines and Mechanisms: Lecture notes in mechanical engineering,Springer lecture notes,2021.
- Influence of Magnesium Hydroxide Fillers on Acoustic, Thermal, and Flame Retardant Properties of Pu Foam L. Yuvaraj, S. Jeyanthi, Digvijay D. Kadam, and R. G. Ajai Lecture Notes in Mechanical Engineering, ISSN: 21954356, eISSN: 21954364, Pages: 393-408, Published: 2021 Springer Singapore.
- Avinash ,Karthicksetty,Giridharan,Jeyanthi, “Influence Of Discharge Energy On Electric Discharge Machining Of Ti Foam Material”Springer lecture notes, ISBN 978-981-329-471-4.
- Sai teja,Jeyanthi“Fuzzy Logic Simulation for Brake-by-Wire Control System” Lecture Notes in Mechanical Engineering, DOI 10.1007/978-981-10-1771-1\_18.

## **GUEST LECTURE DELIVERED**

1. Delivered a talk on “Lightweight materials for EMI shielding applications” on SERB sponsored three days’ workshop in IITDM, Kancheepuram, Chennai, 2021.
2. Delivered a talk on “Acoustic materials for futuristic Applications” during August 6-7, 2020 at Savitha University, Chennai.
3. Delivered a talk on “Polymer and their Engineering applications” during October 24–25, 2020 at Satyabhama university, Chennai.

## **DECLARATION**

I hereby declare that the above-furnished details in the curriculum vitae are true to the best of my knowledge and belief.

  
Dr. S. Jeyanthi

Date: 01.07.2023

(Dr . S.JEYANTHI)

Place: Chennai