

Name: A.PONSHANMUGAKU MAR	Photo 			
Designation:	Associate Professor			
Qualification:	B.E.,M.E.			
Area of specialization:	Thermal Engineering			
Experience:	Industrial Experience		Teaching Experience	
	2.7		21.5	
Number of workshops / FDP attended:	Number of Workshops		Number of FDPs	
	12		8	
Publications:	Conference		Journal	
	National	International	National	International
	5	16	8	32
Books / Book Chapters	6			
Patents:	National		International	
	3		-	
Professional Body Membership	4			
Staff Achievements	-			

Educational Qualifications:

Category	Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University	% of Marks/ Grades obtained	Class obtained
UG	BE	Mechanical Engineering	2001	GCE, Erode, (formerly IRTT)	Bharathiyar Univerdity	60	II
PG	ME	Thermal Engineering	2004	MSEC, Kilakarai	Anna University	72	I
PhD	Mechanical	Natural Composites	Pursuing	-	-	-	-

Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
Md.Sathak Engg	Lecturer	12/09/2004	30/06/2006	1	9	21
SRM Valliammai Engineering College	Assistant Professor	12/06/2006	31/08/2009	3	2	21
SRM Valliammai Engineering College	Asst Professor (Senior Grade)	01/09/2009	29/05/2012	2	9	1
Sathyabama University	Asst Professor	11/06/2012	30/06/2013	1	0	19
SaiRam Institute of Technology	Asst Professor	29/07/2013	01/01/2016	2	5	6
SaiRam Institute of Technology	Associate Professor	02/01/2016	27/08/2025	9	7	27
Sri Sairam Engineering College	Associate Professor	28/08/2025	Till now	6	0	0
				21	4	28

Workshops/Seminars attended: 12

FDP/STTP Attended:	8
Symposium Attended:	-
Conference Attended:	21
Completed / Ongoing Projects:	
Patent:	

Journal Publications:

2024

- Suthahar, P., Palanikumar, K., Ponshanmugakumar, A., & Anbuhezhiyan, G. (2024). Machine learning advancements in machining processes: A comprehensive review for manufacturing optimization. *Journal of Physics: Conference Series*, 2837(1), 012102.
- Prathibha, S., Palanikumar, K., Ponshanmugakumar, A., & Kumar, M. R. (2024). Application of augmented reality and virtual reality technologies for maintenance and repair of automobile and mechanical equipment. In *Machine Intelligence in Mechanical Engineering* (pp. 63–89).
- Palanikumar, K., Natarajan, E., & Ponshanmugakumar, A. (2024). Application of machine vision technology in manufacturing industries—A study. In *Machine Intelligence in Mechanical Engineering* (pp. 91–122).
- Arputhabalan, J. J., Balachandar, M., Asaithambi, T., Balakrishnan, E., et al. (2024). Microcontroller-based auto lock ignition system for vehicle overload prevention. In *2024 International Conference on Communication, Computing and Internet of Things*.
- Asha, R. M., Sivaramakrishnan, S., Rajesh, J., Kolappan, K., et al. (2024). Performance evaluation of composite plastic modified pavement blocks with geogrid reinforcement. *Journal of Physics: Conference Series*, 2837(1), 012040.

2023

- Kartikeyan, B., Ponshanmugakumar, A., Saravanan, G., BharathGanesh, S., et al. (2023). Experimental and theoretical analysis of FDM AM PLA mechanical properties. *Materials Today: Proceedings*.
- Reddy, D. A. K., Rajesh, G., Anbuhezhiyan, G., Ponshanmugakumar, A., et al. (2023). Investigating the mechanical properties of titanium dioxide reinforced magnesium composites. *Materials Today: Proceedings*.
- Periasamy, J. K., Sivalingam, S., Ponshanmugakumar, A., Jasmin, M., et al. (2023). Experimental study on recycled coarse aggregate of concrete. *Materials Today: Proceedings*.
- Lokesh, G., Kumar, P. N., Aishwarya, N., Parthiban, P., & Ponshanmugakumar, A. (2023). Experimental study of the effect of water reducing admixtures on concrete. *Materials Today: Proceedings*.
- Devi, V. B., Rani, D. P., Periasamy, J. K., & Ponshanmugakumar, A. (2023). Experimental investigation on utilization of used foundry sand in concrete as fine aggregate. *Materials Today: Proceedings*.

- Krishnaa, P., Nitin, B., Ponshanmugakumar, A., & Karthikeyan, B. (2023). Experimental results from a two-wheeler fuel tank with natural fiber composite. *i-Manager's Journal on Material Science*.
- Arunkumar, R., Arunkumar, S., Asaithambi, T., Balakrishnan, E., et al. (2023). Electrical energy-powered grass cutter with autonomous operation and pollution mitigation. In *2023 Intelligent Computing and Control for Engineering and Business Systems*.
- Devi, R. L., Sangeetha, K., Ragav, A., Ashwin, R., & Ponshanmugakumar, A. (2023). QR code-enhanced drug identification and access. In *2023 Intelligent Computing and Control for Engineering and Business Systems*.
- Karthikeyan, B., Selvi, G. T., Arputhabalan, J. J., Ponshanmugakumar, A., et al. (2023). A cost-effective navigational aid for the visually impaired. In *2023 International Conference on System, Computation, Automation and Networking*.
- Ponshanmugakumar, A., Saravanan, G., Balachandar, M., Muhilan, S., & Anju, M. I. (2023). Experimental study on bio fiber reinforced composites. *Materials Today: Proceedings*.

2022

- Boppana, S. B., Palani Kumar, K., Ponshanmugakumar, A., & Dayanand, S. (2022). Different natural fiber reinforced composites and its potential industrial and domestic applications: A review. In *Bio-Fiber Reinforced Composite Materials*.
- Sailesh, A., Palanikumar, K., Mani, N., & Ponshanmugakumar, A. (2022). A review on the sustainability prospects of bio fibre reinforced composite materials. In *Bio-Fiber Reinforced Composite Materials*.
- Ponshanmugakumar, A., & Rajavel, R. (2022). Enhancement of heat transfer in solar dehydrator for agriculture products. In *Tailored Functional Materials: Select Proceedings of MMETFP 2021* (pp. 31–42).

2021

- Thiagaraj, J., Rahamathullah, I., Anbuezhayan, G., Barathiraja, R., et al. (2021). Influence of blade numbers, overlap ratio and modified blades on performance characteristics of the Savonius hydro-kinetic turbine. *Materials Today: Proceedings*, 46, 4047–4053.
- Jayakanth, J. J., Mamidi, V. K., Pugazhenti, R., Anbuezhayan, G., et al. (2021). An investigation on wear properties of SiC/WC strengthened aluminium alloy hybrid composites. *Materials Today: Proceedings*, 46, 3542–3545.
- Sivakumar, K., Prasad, A. R., Jagadesh, T., Kumar, S. D., Ponshanmugakumar, A., et al. (2021). Experimental investigation on emissivity of 75Ni–25Cr alloy coated aluminium surface for solar applications. *Materials Today: Proceedings*, 37, 1320–1323.
- Raj, V. R., Vijayaramnath, B., Ramanan, N., & Ponshanmugakumar, A. (2021). Mechanical and corrosion resistant properties of nitrided low carbon steel. *Materials Today: Proceedings*, 46, 3288–3291.
- Selvan, E. V., Ponshanmugakumar, A., Ramanan, N., & Naveen, E. (2021). Determination and investigation of mechanical behaviour on kenaf–sisal hybrid composite. *Materials Today: Proceedings*, 46, 3358–3362.
- Subbulakshmi, M., & Ponshanmugakumar, A. (2021). ICT material development processes for e-learning. *Materials Today: Proceedings*, 46, 4180–4182.

2020

- Rajeshwaran, M., Ramasamy, S., Parthasarathi, R., & Ponshanmugakumar, A. (2020). A critical evaluation of oil extraction and fatty acid composition of *Prosopis Julifera*. *Materials Today: Proceedings*, 33, 4630–4634.
- Rajeshwaran, M., Parthasarathi, R., Ganeshkumar, J., & Ponshanmugakumar, A. (2020). A multi-variant approach to optimize process parameters for oil extraction from non-edible feedstock: *Acacia nilotica*. *Materials Today: Proceedings*, 33, 4671–4676.
- Ponshanmugakumar, A., & Rajavel, R. (2020). Design and analysis of steam turbine blade. *ICACSE*.
- Subbulakshmi, M. (2020). Usage of modern tools and software in teaching methodology – A case study. *International Journal of Psychosocial Rehabilitation*, 24(8), 15430–15437.

2019

- Ponshanmugakumar, A., & Rajavel, R. (2019). Enhancement of heat transfer in double pipe heat exchanger. *Materials Today: Proceedings*, 16, 706–713.
- Ponshanmugakumar, A., & Rajavel, R. (2019). Experimental analysis of vapour absorption generator integrated with thermal energy storage system. *Materials Today: Proceedings*, 16, 1158–1167.
- Balakrishnan, E., Meganathan, S., Balachander, M., & Ponshanmugakumar, A. (2019). Elemental analysis of brake pad using natural fibres. *Materials Today: Proceedings*, 16, 1067–1074.

2018

- Anbusagar, N. R. R., Palanikumar, K., & Ponshanmugakumar, A. (2018). Preparation and properties of nanopolymer advanced composites: A review. In *Polymer-Based Nanocomposites for Energy and Environmental Applications* (pp. 27–73).
- Ponshanmugakumar, A., Karthikeyan, B., & Mohiadeen, V. S. (2018). Fuel efficiency enhancement using water injection system in single cylinder petrol engine. *International Journal of Pure and Applied Mathematics*, 118(24), 1–12.

2017

- Ponshanmugakumar, A., Scholar, R., Madhan, R., Narayanan, A. L., & Rajavel, R. (2017). Thermal energy analysis using TRNSYS in PCM storage tank. *International Journal of Future Revolution in Computer Science & Communication Engineering*.
- Rajasekar, D., Ponshanmugakumar, A., & Rajavel, R. (2017). Design and performance validation of vapour absorption solar air conditioning system. *International Journal of Future Revolution in Computer Science & Communication Engineering*, 3, 115–119.

2016

- Thanigaivel, S., Jaisanthosh, K., Saideepak, C. H., Ponvell, P. S., et al. (2016). Synthetic optimal system algorithm – Gear design. *Indian Journal of Science and Technology*, 9, S1.

2015

- Ponshanmugakumar, A., Badrinarayanan, S., Deepak, P., Sivaraman, H., et al. (2015). Numerical investigation on vertical generator integrated with phase change materials in vapour absorption refrigeration system. *Applied Mechanics and Materials*, 766, 468–473.
- Ponshanmugakumar, A., Vigneswaran, R., & Rajmohan, M. (2015). Different aspects of phase change material encapsulation for sub cool thermal storage – A review. *Applied Mechanics and Materials*, 766, 480–485.

2014

- Ponshanmugakumar, A., Sivashanmugam, M., & Jayakumar, S. S. (2014). Solar driven air conditioning system integrated with latent heat thermal energy storage. *Indian Journal of Science and Technology*, 7(11), 1798.
- Ponshanmugakumar, A., & Vincent, A. A. (2014). Simulation of solar intensity in performance of flat plate collector. *International Journal of Research in Engineering and Technology*, 3(6), 34–41.

Books / Book Chapters:

Books

- **Thamilarasan, K., & Ponshanmugakumar, A. (n.d.). Computer integrated manufacturing. Sams Publishers**

Book Chapters

2024

- Prathibha, S., Palanikumar, K., Ponshanmugakumar, A., & Kumar, M. R. (2024). Application of augmented reality and virtual reality technologies for maintenance and repair of automobile and mechanical equipment. In *Machine Intelligence in Mechanical Engineering* (pp. 63–89).
- Palanikumar, K., Natarajan, E., & Ponshanmugakumar, A. (2024). Application of machine vision technology in manufacturing industries—A study. In *Machine Intelligence in Mechanical Engineering* (pp. 91–122).

2022

- Ponshanmugakumar, A., & Rajavel, R. (2022). Enhancement of heat transfer in solar dehydrator for agriculture products. In *Tailored Functional Materials: Select Proceedings of MMETFP 2021* (pp. 31–42).
- Boppana, S. B., Palani Kumar, K., Ponshanmugakumar, A., & Dayanand, S. (2022). Different natural fiber reinforced composites and its potential industrial and domestic applications: A review. In *Bio-Fiber Reinforced Composite Materials: Mechanical, Thermal and*

- Sailesh, A., Palanikumar, K., Mani, N., & Ponshanmugakumar, A. (2022). A review on the sustainability prospects of bio fibre reinforced composite materials. In *Bio-Fiber Reinforced Composite Materials: Mechanical, Thermal*

2018

- Anbusagar, N. R. R., Palanikumar, K., & Ponshanmugakumar, A. (2018). Preparation and properties of nanopolymer advanced composites: A review. In *Polymer-Based Nanocomposites for Energy and Environmental Applications* (pp. 27–73).

NITTTR Courses:

- Module 1 : Orientation Towards Technical Education & Curriculum Aspects
- Module 2 : Professional Ethics & Sustainable Development
- Module 3 : Communication Skills, Modes and Knowledge Dissemination
- Module 4 ; Instructional Planning and Delivery
- Module 5 : Technology Enabled Learning and Life-Long Self Learning
- Module 6 : Student Assessment and Evaluation
- Module 7 : Creative Problem Solving, Innovation and Meaningful R & D
- Module 8 : Institutional Management and Administrative Procedures

Professional Membership

- 1. IEEE**
- 2. ISTE**
- 3. IEI**
- 4. SAE**