

## BIO DATA



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### 1. Educational Qualification

Degree	Branch / Specialization	Institute/University	Year of Passing
Ph.D.	Mechanical Engineering	Anna University Chennai	2017
M.E.	Internal Combustion Engineering	College of Engineering Guindy / Anna University Chennai	2008
B.E.	Mechanical Engineering	Sethu Institute of Technology / Madurai Kamaraj University	2003

### 2. Professional/ Industry Experience

: (in chronological order)

S.No	Designation	Institution/Organization	Period	
			From	To
1.	Professor	Ramco Institute of Technology	01.02.2024	Till date
2.	Associate Professor	Ramco Institute of Technology	01.01.2020	31.01.2025
3.	Asst.Prof. (Sr.Gr.)	Ramco Institute of Technology	04.06.2018	31.12.2019
4.	Asst.Prof. (Gr. II)	R.M.K. Engineering College	01.08.2014	21.04.2018
5.	Asst.Prof. (Gr. I)	R.M.K. Engineering College	01.07.2010	31.07.2014
6.	Lecturer	R.M.K. Engineering College	13.11.2008	30.06.2010

### 3. Research Interest: Renewable Energy Systems / Solar Desalination / IC Engines

#### 4 Publications

##### 4.1 JOURNAL PUBLICATIONS

Updated as on 31.03.2026

1. **Sivakumar, V** & Ganapathy Sundaram, E, 2013, „Improvement techniques of solar still efficiency: A review“, **Renewable and Sustainable Energy Reviews**, vol.28, pp. 246-264, ISSN :1364-0321. <https://doi.org/10.1016/j.rser.2013.07.037> (SCIE)
2. **Sivakumar Vaithilingam** & Ganapathy Sundaram Esakkimuthu, 2015, „Energy and exergy analysis of single slope passive solar still: an experimental investigation“, **Desalination and Water Treatment**, vol.55, no. 6, pp. 1433-1444, ISSN : 1944-3994. <https://doi.org/10.1080/19443994.2014.928794> (SCIE).
3. **Sivakumar, V**, Ganapathy Sundaram, E & Sakthivel, M 2016, „Investigation on the effects of heat capacity on the theoretical analysis of single slope passive solar still“, **Desalination and Water Treatment**, vol.57, no. 20, pp. 9190-9202, ISSN : 1944-3994. <https://doi.org/10.1080/19443994.2015.1026284> (SCIE).
4. **Sivakumar, V** & Ganapathy Sundaram, E 2016, „Experimental studies on quality of desalinated water derived from single slope passive solar still“, **Desalination and Water Treatment**, vol.57, Issue 57, pp. 27458 - 27468, ISSN : 1944-3994. <https://doi.org/10.1080/19443994.2016.117696> (SCIE).
5. **Sivakumar Vaithilingam**, Sakthivel Thirumalai Gopal, Senthil Kumar Srinivasan, A. Muthu Manokar, Ravishankar Sathyamurthy, Ganapathy Sundaram Esakkimuthu, Ravinder Kumar & Mohsen Sharifpur, 2020, An extensive review on thermodynamic aspect based solar desalination techniques, **Journal of Thermal Analysis and Calorimetry**, (<https://doi.org/10.1007/s10973-020-10269-x>) (SCIE)
6. Duraisamy Ramalingam Rajendran, Esakkimuthu Ganapathy Sundaram, Paulraj Jawahar, **Vaithilingam Sivakumar**, 2020, Omid Mahian & Evangelos Bellos, Review on influencing parameters in the performance of concentrated solar power collector based on materials, heat transfer fluids and design, **Journal of Thermal Analysis and Calorimetry**, Volume 140, Pages 33-51. <https://doi.org/10.1007/s10973-019-08759-8> (SCIE)
7. Duraisamy Ramalingam, R. and Esakkimuthu, G.S. and Paulraj, J. and Abd Elnaby, K. and Athikesavan, M. and Sathyamurthy, R. and **Vaithilingam, S.** 2020, Inferences on the effects of geometries and heat transfer fluids in multi-cavity solar receivers by using CFD, **Environmental Science and Pollution Research**, Volume 27, Pages 32205-32217. <https://doi.org/10.1007/s11356-019-06829-w> (SCIE)
8. **Sivakumar Vaithilingam**, Vimala Muthu, Muthu Manokar Athikesavan, Asif Afzal & Ravishankar Sathyamurthy, “Energy and exergy analysis of conventional acrylic solar still with and without copper fins”. **Environmental Science and Pollution Research** (2021). <https://doi.org/10.1007/s11356-021-16124-2> (SCIE)
9. Mohammed El Hadi Attia, M. Mohamed Thalib, Srinivasan Kumar, Asif Afzal, **Sivakumar Vaithilingam**, Ravishankar Sathyamurthy, A. Muthu Manokar, Water quality analysis of

- solar still distillate produced from various water sources of El Oued region Algeria; **Desalination and Water Treatment**, 253 (2022) 55-62 (<https://doi.org/10.5004/dwt.2022.28303>) (SCIE)
10. Rajendra Prasad Arani, **Sivakumar Vaithilingam**, Kalaivani Selvaraj, Asif Afzal, Experimental studies of solar still with tar-coated blue metal stones: Energy and exergy study, **Environmental Progress & Sustainable Energy**, Published: 09 September 2022, <https://doi.org/10.1002/ep.13997> (SCIE)
  11. V.Savithiri, Mohammed El Hadi Attia, Abd Elnaby Kabeel, **Sivakumar Vaithilingam**, Ganesh Radha krishnan, Enhancing the productivity of hemispherical solar distillation by using energy storage (rubber) and wick materials at different thickness, **Solar Energy Materials and Solar Cells**, 248 (112006), <https://doi.org/10.1016/j.solmat.2022.112006> Volume 248, December 2022, 112006 (SCIE)
  12. M. E. Hadi Attia, A. K. Hussein, G. Radhakrishnan, **Sivakumar Vaithilingam**, O.Younis, and N. Akkurt, “Energy, exergy and cost analysis of different hemispherical solar distillers: A comparative study,” **Solar Energy Materials and Solar Cells**, vol. 252, p. 112187, Apr. 2023, doi: <https://doi.org/10.1016/j.solmat.2023.112187>. (SCIE)
  13. Parimala Vellivel, Savithiri Vembu, Anitha Gunasekaran and **Sivakumar Vaithilingam** (2023). Water depth effect on energy, exergy losses, and exergy efficiency of solar still with wick materials: an experimental research. **Environmental Science and Pollution Research**, 30(30), pp.75170–75182. <https://doi.org/10.1007/s11356-023-27519-8>. (SCIE)
  14. Yuvaraj Maruthupandian; Ganapathy Sundaram Esakkimuthu; **Sivakumar Vaithilingam** (2023) Gopinath Dhamodaran, Comparative analysis of single slope solar still and solar dish concentrator by energy and exergy approach, **Iranian Journal of Chemistry and Chemical Engineering**, Vol.42 (10), pp.3495-3510. [10.30492/IJCCE.2023.1971443.5674](https://doi.org/10.30492/IJCCE.2023.1971443.5674) (SCIE)
  15. **Sivakumar Vaithilingam**; Mohammed El Attia; Ahmed Kadhim Hussein; Asif Afal; Obai Younis (2024) Experimental study on thermo, water quality and economic analysis of hemispherical solar still using different basin materials with and without internal reflector, **Iranian Journal of Chemistry and Chemical Engineering**, Vol.43 (3), pp.3495-3510. [10.30492/IJCCE.2023.2000114.5970](https://doi.org/10.30492/IJCCE.2023.2000114.5970) (SCIE)
  16. A. Mohan, K. Karthik, **V. Sivakumar**, A. Muthu Manokar, Mohamed M. Awad; Enhancing the solar still performance with castor shell powder and carbonized castor shell powder for clean water production: Energy and exergy analysis, **Applied Thermal Engineering**, 279 (2025) 127647. <https://doi.org/10.1016/j.applthermaleng.2025.127647> (SCIE)
  17. Emmanuel AgboTei, **V. Sivakumar**, Rasool Mohideen & A. Muthu Manokar; An experimental study examined how seawater depth affects the performance of solar stills with and without silicon carbide; **Scientific Reports**, 15, Article number: 19242 (2025)

<https://doi.org/10.1038/s41598-025-02915-x>

18. R. Arun Kumar, **V. Sivakumar**, P. Ramanan, Performance investigation on an inbuilt condenser solar still with rotating drum – 5E analyses; **Applied Thermal Engineering** 288 (2026) 129622. *Applied Thermal Engineering* 288 (2026) 129622  
<https://doi.org/10.1016/j.applthermaleng.2025.129622>

#### **Scopus Indexed**

1. **Sivakumar, V** & Ganapathy Sundaram, E 2017, 'Assessment of convective heat transfer coefficient and mass of water evaporated from a single-slope passive solar still by different thermal models: an experimental validation', **International Journal of Ambient Energy**, Vol.No.38, Issue no.7, pp 742-751. <https://doi.org/10.1080/01430750.2016.1195777>
2. **Sivakumar, V** & Ganapathy Sundaram, E 2018, 'MATLAB modelling and examination of the effect of heat capacity of basin and glass cover on performance of solar still by thermal models', **International Journal of Ambient Energy**, Vol.No.39, Issue no.1, pp 1-10. <https://doi.org/10.1080/01430750.2016.1222956>
3. Arun Kumar, R, Vigneshwaran, K & **Sivakumar, V** 2020, Energy and exergy analysis of an inbuilt condenser single basin single slope solar still with zno nano particle coating, **Journal of Green Engineering**, Volume 10, Year 2020, Pages 4187-4201.
4. S.Godwin Barnabas, S.Valai Ganesh, **V.Sivakumar**, P.Muthukumar, A.Dhinesh Raja, K.Hariharan, 2020, Development of medical physio device for stroke patients, **Materials today Proceedings**, (<https://doi.org/10.1016/j.matpr.2020.02.929>)
5. **Sivakumar Vaithilingam**; Arun Kumar Rajasekaran; Palani Bharathi Ramachandran; Selva Balaji Muniyand; Jabinth John Sekar Raj; Rajakarunakaran Sivaprakasam, Energy and exergy analysis of single slope passive solar still with atomizer, International Conference on Smart Technologies and Applications (ICSTA 2022) **AIP Conf. Proc.** 2831, 070003-1–070003-6; <https://doi.org/10.1063/5.0162856> Published by AIP Publishing. 978-0-7354-4651-9
6. P. Thiruramanathan, S. Manjula, N. Karthikeyan, R. Srinivasan, **V. Sivakumar**, Photodegradation behaviour of sol–gel synthesized  $\text{Bi}_4\text{Ti}_3\text{O}_{12}$  for water pollution disinfection, **Materials today Proceedings**, <https://doi.org/10.1016/j.matpr.2023.05.709> (2023)
7. Ganesh Radhakrishnan, **Sivakumar Vaithilingam**, V. D. Tamilarasan and M. Manikandan; Multi Response Optimization during Machining of Magnesium Matrix Nanocomposite Reinforced with TiN Nanoparticulates; *Malaysian Journal of Chemistry*, 2025, Vol. 27(3), 361-369 (Special Issue: International Conference on Sustainable Materials and Technologies, ICSMT 2025)

## Article

- Ashok Kumar M, Kumaresan G, Rajakarunakaran S, **Sivakumar V**, Performance comparison of Closed Loop Heat Pump Dryer with Bed, Tray and Bed-Tray Dryer for Curry Leaves, 36<sup>th</sup> National Convention of Mechanical Engineers, IEI Conferences (2021) [https://doi.org/10.36375/prepare\\_u.iei.a228](https://doi.org/10.36375/prepare_u.iei.a228)

## 4.2 CONFERENCE PUBLICATIONS

Sl. No.	Title of Paper	Name of Conference / Seminar/FDP	Duration	Organized by
1.	Experimental Investigation on IoT-Enabled Atomizer in Single-Slope Passive Solar Still	Third International Conference on Materials, Energy and Environment (MEE'2025)	21-22, April 2025	El Oued University, Algeria
2.	Photodegradation behaviour of sol-gel synthesized Bi <sub>4</sub> Ti <sub>3</sub> O <sub>12</sub> for water pollution disinfection	International Conference on Advanced Technologies in Chemical, Construction and Mechanical Sciences (ICATCHCOME 2023)	09 - 10, February 2023	KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, India
3.	Energy and Exergy Analysis of Single Slope Passive Solar Still with Atomizer	International Conference on Smart Technologies and Applications (ICSTA 2022).	11 - 12, March 2022	Ramco Institute of Technology
4.	“IoT Based Smart Door-To-Door Segregation and Prediction of Solid Waste Collection System using LABVIEW and Google Firebase”,	International Conference on Smart Technologies and Applications (ICSTA 2022)	11 - 12, March 2022	Ramco Institute of Technology
4.	Progress in Improving the Productivity of Solar Still – A Review	International Conference on Smart Technologies and Applications (ICSTA 2022)	11 - 12, March 2022	Ramco Institute of Technology

5.	Application of Pedagogy Tools and Learning Management System in Higher Education-Case Study	International Virtual Conference on Interdisciplinary Approaches to education research and language Teaching – ICERLT 2021	25th August 2021 & 26th August 2021	Department of Languages and Communication, School of Foundational Sciences, Kumaraguru College of Technology, Coimbatore & Department of English, College of Arts and Science, Wadi Addawasir, Prince Sattam Bin Abdulaziz University, Kingdom of Saudi Arabia
6.	Performance Comparison of Closed Loop Heat Pump Dryer with Bed, Tray and Bed-Tray Dryer for Curry Leaves	36th National Convention of Mechanical Engineers and National Conference on Innovations in Thermal Science and Engineering	05 Dec., 2021	IE(I) Tripura State Center
7.	Experimental Study on Water Softening Using Biochar	National Web Conference on Challenges and Innovation in Engineering and Technology - 2021	2021	Ramco Institute of Technology
8.	Energy and Exergy Analysis of an Inbuilt Condenser Single Basin Single Slope Solar Still with ZnO Nano Particle Coating	International Web Conference on Smart Engineering Technologies 2020 (IWCSET -2020)	June 26 <sup>th</sup> and 27 <sup>th</sup> , 2020	Ramco Institute of Technology
9.	Studies on the performance of different types of pebbles in solar desalination	International Web Conference on Smart Engineering Technologies 2020 (IWCSET -2020)	June 26 <sup>th</sup> and 27 <sup>th</sup> , 2020	Ramco Institute of Technology

10.	Simple Mechanical Devices for Hemorrhagic Stroke Patients	International Conference on Advances in Materials Research – 2019	December 06&07, 2019	Bannari Amman Institute of Technology, Sathyamangalam,
11.	Performance Enhancement of Single Slope Passive Solar Still With Heat Pipes	22 <sup>nd</sup> International Water Technology Conference Ismailia, Egypt	12-13, September 2019	International Water Technology Association
12.	Composite materials from wood and rubber waste	International Conference on Advances in Materials Processing and Characterization (ICAMPC-2019)	10.11.2019 & 11.11.2019	Departments of Aeronautical, Automobile, Mechanical and Mechatronics Engineering, Bannari Amman Institute of Technology, Sathyamanagalam.
13.	New green manufacturing model for end of life of automotive components	International Conference on Advances in Materials Processing and Characterization (ICAMPC-2019)	10.11.2019 & 11.11.2019	Departments of Aeronautical, Automobile, Mechanical and Mechatronics Engineering, Bannari Amman Institute of Technology, Sathyamanagalam.
14.	Experimental and CFD Studies on Energy and Exergy Efficiencies of Solar Dish Cavity Receivers with Different coil configurations	11th International Exergy, Energy and Environment Symposium (IEEEES11-2019)	July 14 to 18, 2019	Department of Automobile Engineering, SRM Institute of Science & Technology, Chennai.
15.	CFD Studies on Multi Cavity Solar Receiver with Two Heat Transfer Fluids	5 <sup>th</sup> International Conference on Scientific Research (ISR), Renewable Energy & Water Sustainability	March 26 and March 29, 2019	Tanta University, Egypt
16.	Improvisation of single slope passive solar still performance by using heat pipes	National Conference on Recent Trends in Mechanical Engineering (RTME 2019)	23.03.2019	IE(I) Mechanical Students Chapter and SAE India, Dr.Sivanthi Aditanar College of Engineering, Tiruchendur
17.	An Experimental Investigation of the Effect of Heat Pipes Usage in Single Slope Passive Solar Still'	National Conference on Emerging Research and Advances in Mechanical Sciences (ERAMS-2017)	18.03.2017	Velammal Engineering College, Surapet.

18.	Effect of Heat absorbing basin material on distillate yield of single slope passive solar still - an experimental investigation	National Conference on Emerging Research and Advances in Mechanical Sciences (ERAMS-2015)	2015	Velammal Engineering College, Surapet.
19.	Effect of heat capacity of basin material and glass cover on distillate yield of single slope passive solar still - A theoretical investigation	International Conference on Sustainable Energy Resources, Materials and Technologies	8th & 9th January 2015	SSN College of Engineering, Chennai
20.	Convention of thermal energy storage materials in solar still: A review	International Workshop and Conference on Renewable Energy and Climate Change - Exploring Opportunities for Sustainable Development	5 <sup>th</sup> to 7 <sup>th</sup> April, 2012	Madurai Kamaraj University, Madurai

#### 4.3 COPYRIGHT REGISTERED

Sl. No.	Title	Application No.	Filed Date	Status	Inventor(s)
1.	The Impact of Matlab & Simulink in Teaching and Learning Process for Enhancing the Effectiveness of Teachers and Students of Mechanical Engineering	L-138187	11.07.2022	Registered	Jerold John Britto J Rajakarunakaran S Sivakumar V Venkatesh R
2.	Copyright Internal Combustion Engines Part I Basic	L-116169	03.06.2022	Registered	V.Sivakumar M.Sivagaminathan alias Balaji, R. Arun Kumar

#### 4.4 Funded Projects

S.No.	Title of the Project	Funding Agency	Duration	Amount	Status
1.	Eco-friendly IoT-enabled water purifier	Tamil Nadu state council for science and technology (TNCST), Chennai	6 Months	7,500	Completed
2.	Design and Development of a fine Kora Grass Splitting Machine	IE (I) R&D Grant-in-aid Scheme	1 Year	32,000	Completed

### 5. Short term Courses / Seminars /FDP/Workshop/ConferenceAttended:

Title of the event	Organized by	Date	
		From	To
Three-day Faculty Development Programme on "IDEALAB TOOLS and EQUIPMENTS"	Sri Manakula Vinayagar Engineering College, Puducherry	10.12.2025	12.12.2025
Virtual Faculty Development Program (FDP) on "AI Impact Across Industries"	IITM PALS	18.11.2025	20.11.2025
AICTE IDEA LAB FEST 2025	AICTE, New Delhi	07.03.2025	-
"Outcome Based Education and Accreditation"	College of Engineering, Guindy and sponsored by NBA, New Delhi	09.02.2025	-
NABL Awareness Program for Strengthening Industries through Lab Accreditation	NABL & Virudhunagar Chamber of Commerce & Industry	30.01.2025	-
AICTE Training And Learning (ATAL) Academy Faculty Development Program on Navigating SDGs: A Faculty Guide to Sustainability Achievement	New Delhi Institute of Management, New Delhi	20.01.205	25.01.2025
"Orientation to Old Method of NAAC Process and Important Insights about New Binary/Graded Accreditation System"	Accreditation Ranking and Certification Network of India (ARCNET India) and CliMed Research Solutions	04.02.24	-
One day collaborative workshop on "Accreditation and Academic Excellence"	Vellore Institute of Technology, Chennai & Anna University Chennai	21.07.2023	-
8 <sup>th</sup> International Conference on Transformation in Engineering Division	IUCIEE at Vidyavardhaka College of Engineering, Mysuru, Karnataka, India	05.01.2023	08.01.2023
Revised NAAC Accreditation Process – Acing Quantitative and Qualitative Metrics	Internal Quality Assurance Cell, Kumaraguru College of Technology, Coimbatore	12.10.2022	13.10.2022
FDTP on "ME8595 Thermal Engineering II"	University College of Engineering	18.07.2022	23.07.2022

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“NAAC Accreditation System with Effective DVV process”	G H Rasoni College of Engineering, Nagpur	13.05.2022	14.05.2022
Proposal writing workshop	PALS RUTAG	02.03.2022	03.03.2022
Six day AICTE – AU STTP on “Avenues for energy conservation in residential buildings”	Institute for Energy Studies, Dept. of Mech. Engg., College of Engg. Guindy, Anna University, Chennai	24.01.2022	31.01.2022
36 <sup>th</sup> National Convention of Mechanical Engineers on the Theme Innovations in Thermal Science and Engineering	Tripura State Centre, IE(I)	05.12.2021	07.12.2021
FDP on “ME8595 Thermal Engineering - II”	University College of Engineering, Villupuram, Anna University	18.07.2021	23.07.2021
FDP on “Thermodynamic Analyses of Energy Systems”	Institute of Engineering & Technology, Devi Ahilya Vishwavidyalaya, Indore, Madhya Pradesh	12.07.2021	16.07.2021
NITTT – Orientation Training Programme for Mentors	National Initiative for Technical Teachers Training	01.02.2021	05.02.2021
Weld Overlay Solutions for Wear Protection	Indian Welding Society, Trichy	21.01.2021	---
8 <sup>th</sup> International Conference on Transformation in Engineering Division (ICTIEE-2021)	Indo Universal Collaboration for Engineering Education	08.01.2021	10.1.2021
“Ideation and Proposal Writing Workshop”	RuTAG IIT Madras and PALS	19.12.2020	-
AICTE Training and Learning (ATAL) Academy online FDP on “Energy Engineering”	Gandhi Institute for Education and Technology, Bhubaneswar, Odisha	09.11.2020	13.11.2020
ATAL sponsored FDP on "Energy Storage"	AICTE	05.10.2020	09.10.2020
Five days online workshop on “Universal Human Values”	AICTE	10.08.2020	14.08.2020

Role of Faculty in Challenging Situation	Training and Placement Cell in association with RIT- ISTE Faculty Chapter, Ramco Institute of Technology	26.07.2020	---
Three-day national level webinar on "Advances in thermal sciences and fluid flows"	Department of Mechanical Engineering, MVSRR Engineering College	24.07.2020	26.07.2020
Six-day National webinar series on "A Vision towards Materials and Manufacturing"	Department of Mechanical Engineering, KPR Institute of Engineering and Technology	20.07.2020	25.07.2020
AICTE Training and Learning (ATAL) Academy online FDP on "Internet of Things (IoT)"	National Institute of Technology, Warangal	22.06.2020	26.06.2020
Six-day FDP on "Energy Management Systems"	Department of Electrical and Electronics Engineering, R.M.D.Engineering College, Kavaraipeitai	08.06.2020	13.06.2020
FDP on "Evolution from Offline to Online Teaching"	Satish Pradhan Dnyanasadhana College, Thane IQAC and FDP Committee in association with Department of Information Technology, University of Mumbai, Yashwantrao Chavan Maharashtra Open University, Mumbai Regional Centre anMicrosoft	30.05.2020	03.06.2020

Three Days National Level Faculty Development Program on Online College Management & Online Content Creation Tools”	BMM & BAMMC Department of Lala Lajpat Raj College of Commerce & Economics and University of Mumbai with North Storm Academy	30.04.2020	02.05.2020
One-day workshop on “International online workshop on Research Methodology - Defining & Redefining”	Neville Wadia Institute of Management Studies & Research, Pune	28.04.2020	-
Online training on “Solar PV Installation”	MSME Technology Development Centre (PPDC)	27.04.2020	29.04.2020
Three day Faculty Development Program at Teaching Learning Centre	IIT M PALS	12.11.19	14.11.19
Five day FDP on "Basics in Computational Fluid Dynamics"	Mepco Schlenk Engineering College	28.05.19	01.06.19
Faculty Advisor Meeting	ISHRAE Madurai Chapter	18.05.19	18.05.19
One day conclave on Engineering and Science - Trends, Opportunities and Challenges	Thiyagarajar College of Engineering, Madurai in association with The Times of India and Pan IIT Alumni Leadership Series (PALS)	14.03.19	14.03.19
Two days conclave on "The future of higher education - Leadership conclave"	Kumaraguru College of Technology, Coimbatore, in partnership with AICTE	13.02.19	14.02.19
Five day residential workshop on Inspiring Engineers through Innovation Creative Models and Machines	IIT Gandhinagar	08.01.19	12.01.19
FDP on Recent trends in Solar Energy Conversion and Storage	Mepco Schlenk Engineering College	12.11.18	14.11.18

Two day workshop on "Application of CFD in Science and Engineering"	R.M.K College of Engineering and Technology	01.12.17	02.12.17
Internal auditor training on ISO 9001:2015	R.M.K. Engineering College	30.10.17	31.10.17
One day workshop on Advanced Researches in Thermal Science	Velammal Engineering College, Chennai	05.05.17	05.05.17
One day workshop on Intellectual Property Rights & Patent Drafting	R.M.K. Engineering College	28.01.17	28.01.17
Faculty Training for Industry Awareness Programme on Zero Defect and zero Effect Certification Scheme	Entrepreneurship Development Institute of Tamilnadu, Sidco Industrial Estate, Guindy, Chennai	10.01.17	10.01.17
One day workshop on "INDO-UK Workshop on Water Desalination"	Institute for Energy Studies (IES), Department of Mechanical Engineering, College of Engineering Guindy, Anna University	09.04.16	09.04.16
National seminar on "Heat transfer enhancement in solar energy systems"	School of Mechanical and Building Sciences (SMBS), VIT Chennai	21.02.15	21.02.15
Indo German Centre for Sustainability Energy workshop on "Improving Energy Sustainability - Conventional and Renewable"	Indian Institute of Technology Madras, Chennai	04.12.14	05.12.14
National workshop on "How to Write Research Papers and get Published in Journals"	School of Computing Science and Engineering, VIT Chennai	21.11.14	21.11.14
One day workshop on "Advances in energy storage for energy management and broader use of renewable sources"	Institute for Energy Studies, Department of Mechanical Engineering, Anna University, Chennai	27.03.14	27.03.14

TEQIP sponsored two day faculty development programme on "Nanofluids"	Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai	05.12.13	06.12.13
FDP on "Engineering Thermodynamics"	College of Engineering Guindy, Anna University	10.06.13	17.02.13
One day workshop on Role of nanomaterials in science and Engineering	R.M.K College of Engineering and Technology	03.12.12	03.12.12
Two days international conference on Advanced materials and processing (ICAMP 2011)	R.M.K. Engineering College	19.12.11	20.12.11
Three day Quality Improvement Programme on "Instructional Design and Delivery"	National Institute of Technical Teachers Training & Research	16.12.10	18.12.10
One day workshop on "Energy Conservation Techniques"	Velammal Engineering College, Surapet	22.11.10	22.11.10
"Acharya, an intensive training to achieve professional excellence and life mastery"	R.M.K. Engineering College	30.07.10	30.07.10
Two day national seminar on "Technical Teachers Quality Improvement (TTQI- 2009)"	Consortium of Self-Financing Professional, Arts & Science Colleges in Tamilnadu	30.05.10	31.05.10
National level one day workshop on "Computational Fluid Dynamics"	S.A. Engineering College, Chennai	19.02.09	19.02.09

**6. Short term Courses / Seminars /FDP/Workshop/Conference organized:**

Title of the event	Organized by	Date	
		From	To
Funding Schemes in India, Institute R&D and Start-up Ecosystem Creation, National R&D Priorities and Nuances in Proposal Writing	RIT RC and RIT ISTE	17.02.2026	-

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A Two-Day National Level Capacity Building Programme on "Collaborative Innovation: How Multidisciplinary Research is Shaping the Future	Central Library, Ramco Institute of Technology, the Department of Physics, RIT Research Council, RIT Institute Innovation Council & NDLI Club	28.03.2025	29.03.2025
A Two-Day National Level Capacity Building Programme On "Scholarly Writing: Research Publications, Citation Analysis, Anti Plagiarism, Reference Management Tools and Strategies of Copyright and Patent (IPR)	Ramco Institute of Technology	04.08.23	05.08.23
Three days' workshop [Virtual Mode] on "Outcome Based Education"	Ramco Institute of Technology	24.07.23	26.07.23
International Conference on Contemporary Research Advancements in Mechanical Engineering 2023 (ICCRAME'23)	Ramco Institute of Technology	24.03.2023	25.03.2023
"Role of NAAC in enhancing quality in Higher Education Institutions"	Ramco Institute of Technology	16.12.2022	17.12.2022
ELS: Industry 4.0 : Digital Transformation in Manufacturing Industry	RIT	24.01.2021	-
How to write a quality research proposal?	RIT RC	21.12.2021	-
Strategies to Write Research Proposal and Funding Opportunities in India	RIT- Library, IIC, RC and NDLI Club	08.12.2021	-
ELS: Maintenance 4.0 in wind energy industry	RIT	26.11.2021	-
Naturopathy to lead a disease free life	RIT	18.11.2021	-
"The Need for a National Education Policy (NEP) & the reforms in NEP 2020"	RIT	10.11.2021	-

Investigation of supersonic flows in micro/nano channels using the unstructured direct simulation monte carlo (USDMC) method	RIT	24.09.2021	-
ELS: Using of Gleeble 3800 Simulator to shape the structure and properties of the various engineering materials and various techniques	RIT	20.07.2021	-
Industry – Institute Lecture Series – 5	RIT	29.08.2021	-
ELS: Nanofluids in Solar Energy: Applications and Challenges	RIT	06.05.2021	-
Industry – Institute Lecture Series – 3	RIT	26.04.2021	-
Industry – Institute Lecture Series – 1	RIT	24.01.2021	-
Basics and Recent Trends in R&AC	Department of Mechanical Engineering, Ramco Institute of Technology, in association with the RIT-ISHRAE, RIT IE(I), and RIT - IIC Chapter.	12.01.2021	-
Patent Drafting Do's and Don'ts	RIT RC	01.12.2020	-
Design principles and Application of Cooling Towers	Department Of Mechanical Engineering in association with ISIE-RIT-SRA, Ramco Institute of Technology, Rajapalayam	30.10.2020	-
Patent Search and Drafting	RIT RC	24.10.2020	-

"Role of Youth in Attaining Atmanirbhar Bharat in Energy" as a part of "Global Swachh Vatavaran Abiyan of Student solar ambassador workshop"	Energy swaraj foundation in association with Ramco Institute of Technology	02.10.2020	-
National Level Workshop on "Effective and Efficient Writing of Research Papers for Web of Science, Scopus Indexed Journal and Conference Papers Using Typeset Research"	RIT Library, RIT Research Council, and Nexus International company	29.08.2020	-
Waste heat recovery with absorption heat transformers and its applications	Department of Mechanical Engineering, RIT in association with RIT – ISHRAE & RIT – ISTE	03.6.2020	-
Implementation of National Education Policy 2020	RIT	24.03.20	-
A Five day Webathon on Future topics in Mechanical Engineering	Department of Mechanical Engineering, RIT	18.5.2020	22.05.2020
Webinar on "Bharat IV/VI Stage norms, Design, considerations and road map to EV"	RIT-MECHCAD CENTRE, Department of Mechanical Engineering, RIT	16.05.2020	-
Webinar on "Automotive Design Sculpting"	RIT-MECHCAD CENTRE, Department of Mechanical Engineering, RIT	14.5.2020	-
Student Solar Ambassador 2019	Ramco Institute of Technology (Workshop is Authorized by IIT Bombay)	02.10.19	-
One day workshop on "Working of Passenger car, Motor Cycle & Car Gear Box"	R.M.K. Engineering College	11.12.18	11.12.18
One day workshop on "Automotive Engine Dismantling and Assembly"	R.M.K. Engineering College	27.12.17	27.12.17

Awareness program on "Industry 4.0"	R.M.K. Engineering College	10.07.17	10.07.17
"Creating competent engineers for a new India, with innovative minds and entrepreneurial capabilities"	Consortium of self-financing professional, Arts and Science colleges in Tamil Nadu	20.05.17	20.05.17

### 7. Online Courses

Sl.No.	Course title	University	Date
1.	Urban Sewage Treatment	November 2018	November 2018
2.	Introduction to Differential Equations	Delft University of Technology	November 2018
3.	Calculus 1 A Differentiation	Massachusetts Institute of Technology	December 2018
4.	Calculus 1 B Integration	Massachusetts Institute of Technology	March 2019
5.	Hands-on training on Solar Study Lamp Assembly	IIT Bombay	November 2019
6.	Wind Energy	Technical University of Denmark (DTU)	June 2020
7.	Vector Calculus for Engineers	The Hong Kong University of Science and Technology	June 2020
8.	Intellectual Property Rights: A Management Perspective	Indian Institute of Management Bangalore	August 2020
9.	Transfer Functions and the Laplace Transform	Massachusetts Institute of Technology	September 2020
10.	Operations Research: an Active Learning Approach	The Hong Kong Polytechnic University	September 2020
11.	Multi Variable Calculus	Massachusetts Institute of Technology	2019-2020
12.	Intellectual Property Rights: A Management Perspective	IIMB	August 2020
13.	Differential Equations: 2 x 2 systems	Massachusetts Institute of Technology	November 2021
14.	Introduction to Programming with MATLAB	Vanderbilt University	September 2021

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15.	Introduction to Household Water Treatment and Safe Storage	École Polytechnique Fédérale de Lausanne	May 2022
16.	Planning & Design of Sanitation Systems and Technologies	École Polytechnique Fédérale de Lausanne	October 2022
17.	“Thermodynamics”	NPTEL	October 2022
18.	CalcAPL1x: Calculus Applied	Harvard	May 2023
19.	Power Plant Engineering	NPTEL - IIT Roorke	July to September 2023
20.	Energy Literacy Training	Energy Swaraj Foundation	December 2023
21.	Waste to Energy Conversion	IIT Roorkee via NPTEL.	Jan- Mar., 2025.
22.	Differential Equations for Engineers	The Hong Kong University of Science and Technology	April 2024
23.	Heat Transfer	NPTEL - IIT Bombay	Jan to April 2024
24.	Steam Power Engineering	IIT Guwahati via NPTEL	July- Sep., 2024.
25.	Applied Thermodynamics for Engineers	IIT Guwahati via NPTEL	July- Oct., 2024
26.	Non-conventional energy Resources	IIT Madras via NPTEL	Jan- Apr., 2025
27.	Patent Drafting for Beginners	IIT Madras via NPTEL	July- Aug., 2025.
28.	Learning Analytics Tools	IIT Bombay via NPTEL	July- Oct., 2025.
29.	Ethics in Engineering Practice	IIT Kharagpur via NPTEL	Aug. - Oct., 2025.
30.	Technical Communication for Engineers;	IIT Roorkee via NPTEL.	July- Aug., 2025.
31.	AI for Educators	SWAYAM Plus IITM Pravartak Technologies Foundation	Nov. 2025- Feb., 2026

## 8. Patents filed/awarded

- a. NOVEL INVENTION TO MAINTAIN TIRE AT CONSTANT PRESSURE USING HEATED ATMOSPHERIC AIR “Patent application number: 201641013417A” Status: Patent awarded; Patent Number :422471

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- b. Semi Automated Hand Rehabilitation Device. Patent application number: 202241000328. Patent Granted.
- c. Vehicular Energy Turbine System. Patent number: 202241066663. Patent Granted
- d. A fine Kora Grass splitting machine. Patent number: 202541098560. Patent published

#### **9. Membership in Professional societies**

- a. The Indian Society for Technical Education (ISTE) - Life member (LM 105537)
- b. Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE) - Life Member (45118)

#### **10. Awards, Recognition & Achievements**

- a. Faculty advisor for the student **Deepak Ganesan** won the national level technical best project award and received **Rs. 1,00,000/-** from the state Governor Honorable C.Vidyasagar Rao in the "**TECHKNOW 2017**" organized by **All India Manufacturer's Organization** and **Anna University**.
- b. Received development expenditure of **Rs. 1,00,000/-** under the scheme **Innovation and Entrepreneurship Development Centre (IEDC)**, sponsored by **National Science & Technology Entrepreneurship Development Board (NSTEDB) - DST, GoI** for the year 2015 - 2016.
- c. Received development expenditure of **Rs. 25,000/-** under the scheme **Innovation and Entrepreneurship Development Centre (IEDC)**, sponsored by **National Science & Technology Entrepreneurship Development Board (NSTEDB) - DST, GoI** for the year 2014 - 2015.

#### **RESOURCE PERSON**

- Served as a resource person for the Faculty Development Programme titled "Higher Education Pathways for Polytechnic College Teachers" organized by P.A.C. Ramasamy Raja Polytechnic College, Rajapalayam on 09 March., 2026.
- Served as an expert team member for NAAC cycle II Mock audit at SSMIET, Dindigul on 20 Nov., 2023
- Delivered a lecture on "Cooling of Electronic Components" organized by Departments of Mechanical Engineering, Velammal Engineering College, Surapet, Chennai on 11 Aug., 2021.
- Delivered a lecture on " Effective Writing skill – Project Work " organized by Department of Mechanical Engineering, Ramco Institute of Technology, Rajapalayam on 08 Jan., 2021.
- Delivered a lecture through a webinar on "Energy Conservation Save Today and Survive Tomorrow" organized by ISTE in association with Solar Energy Laboratory, Department of Mechanical Engineering, Ramco Institute of Technology, Rajapalayam on 27 Sep., 2020.

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- Delivered the lecture on the topic “Working and Comparison of Reciprocating and Rotary compressor, Significant Relations in Reciprocating Compressor & Problem approach – Reciprocating Compressor” for five days webinar series on Thermal Engineering – I- A simplified approach on 05.06.2020.
- Delivered the lecture on the topic “IC Engine - Heat Balance Sheet” for five days webinar series on ME8493 Thermal Engineering – I - A simplified approach on 08.06.2020.

**Any others (Board of studies/Governing Council/Staff Selection/Reviewer/other duties)**

- Completed "IUCEE Academic Leadership Course 2025" offered by IUCEE during Oct. 2025- Jan. 2026.
- Recognized as an “NPTEL Believer Star” by NPTEL during the July- Dec. 2025 session.
- Recognized as an “NPTEL MOTIVATED LEARNERS” by NPTEL during the July- Dec. 2025 session.
- Received SALIS – Library Ambassador Award for the Year 2025
- Faculty advisor for the team "Electric Solar Vehicle Championship 2017".
- Faculty advisor for the team “TRAILBLAZERS” GoKart Design Challenge 2015.
- Reviewer of Desalination, Desalination and Water Treatment, Renewable Energy, Journal of Thermal Analysis and Calorimetry, Journal of Thermal Engineering, Journal of Materials Science and Environmental Science Pollution Research.
- Reviewer in the NWCCIET 2021 Conference held at Ramco Institute of Technology, Rajapalayam.
- Reviewer in the ICSTA 2022 International Conference organized by Ramco Institute of Technology, Rajapalayam.
- Received IC5e 2021 Technical Reviewer Certificates for the year 2021 from Association of Scientists, Developers and Faculties (ASDF) (Reviewers/Speakers – World class committee) on 3<sup>rd</sup> November, 2021.
- DC member for the Research Scholar Mr. Dineshkumar P T (Registration No.: 21142997158), AP/Mech, Department of Mechanical Engineering, Rajalakshmi Engg. College, Kancheepuram.
- DC member for the Research Scholar Mr. Sankara Narayana Murthy A (Registration No.: 20142891117) AP/Mech, Department of Mechanical Engineering, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY (Autonomous), S.P.G.C. Nagar, Near Virudhunagar, Madurai District, K.Vellakulam-625701.