

BIO DATA



Name : Dr.V.Sivakumar
Designation : Associate Professor
Department : Mechanical Engineering
Address for Communication : Ramco Institute of Technology,
Rajapalayam - 626117.
Email : vsivakumar@ritrjpm.ac.in
Mobile Number : 9994262997
Google Scholar link

https://scholar.google.com/citations?hl=en&user=IvpJst4AAAAJ&view_op=list_works&sort_by=pubdate

1. Educational Qualification

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

2. Professional/ Industry Experience

: (in chronological order)

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

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. IF – 10.556. <https://doi.org/10.1016/j.rser.2013.07.037>
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. IF – 1.234. <https://doi.org/10.1080/19443994.2014.928794>
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. IF – 1.234. <https://doi.org/10.1080/19443994.2015.1026284>
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. IF – 1.234. <https://doi.org/10.1080/19443994.2016.1176963>
5. **Sivakumar, V** & Ganapathy Sundaram, E, Sakthikiran, B, Sanjay Krishnan, T & Riyaz Hussain, A 2015, 'Effect of heat capacity of basin material and glass cover on distillate yield of single slope passive solar still - A theoretical investigation', Applied Mechanics and Materials, Vol. 787, 2015, pp. 43-47. <https://doi.org/10.4028/www.scientific.net/AMM.787.43>
6. **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>
7. **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>
8. Duraismy Ramalingam Rajendran, Esakkimuthu Ganapathy Sundaram, Paulraj Jawahar, **Vaithilingam Sivakumar**, 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. IF – 2.471. <https://doi.org/10.1007/s10973-019-08759-8>
9. Rajendran Duraisamy Ramalingam, Ganapathy Sundaram Esakkimuthu, Jawahar Paulraj, Kabeel Abd Elnaby, Muthumanokar Athikesavan, Ravishankar Sathyamurthy

& **Sivakumar Vaithilingam**, “Inferences on the effects of geometries and heat transfer fluids in multi-cavity solar receivers by using CFD”, Environmental Science and Pollution Research (2019).

10. **S. Godwin Barnabas, S. Valai Ganesh, V. Sivakumar, P.Muthukumar, A.Dhinesh Raja, K.Hariharan**“Development of medical physio device for stroke patients”.Materials Today Proceedings (Impact factor 0.694.), Available online 28th March 2020, DoI: <https://doi.org/10.1016/j.matpr.2020.02.929>
11. **R.Arun Kumar, K.Vigneshwaran, V.Sivakumar**, Energy and Exergy Analysis of an Inbuilt Condenser Single Basin Single Slope Solar Still with ZnO Nano Particle Coating,) Journal of Green Engineering, Vol.10, Issue 7, 2020.
12. **Sivakumar Vaithilingam**, Sakthivel Thirumalai Gopal, Senthil Kumar Srinivasan, A. Muthu Manokar, Ravishankar Sathyamurthy, Ganapathy Sundaram Esakkimuthu, Ravinder Kumar & Mohsen Sharifpur, “An extensive review on thermodynamic aspect based solar desalination techniques”, Journal of Thermal Analysis and Calorimetry, 2020. (<https://doi.org/10.1007/s10973-020-10269-x>)

4.2 CONFERENCE PUBLICATIONS

1. **Arun Kumar R, Vigneshwaran K, Sivakumar V**,"Energy and Exergy Analysis of an Inbuilt Condenser Single Basin Single Slope Solar Still With ZnO Nano Particle Coating", Proceedings of International Web Conference on Smart Engineering Technologies 2020 (IWCSET -2020), Organized by RIT, June 26th and 27th, 2020.
2. M Yuvaraj, E Ganapathy Sundaram, **V Sivakumar**,"Studies on the performance of different types of pebbles in solar desalination", Proceedings of International Web Conference on Smart Engineering Technologies 2020 (IWCSET -2020), Organized by RIT, June 26th and 27th, 2020.
3. **Sivakumar V**, Arun Kumar R, Kabeel A, Ganapathy Sundaram E, Rajendran DR, Muthumanohar D, Sathyamurthy R, Rajakarunakaran S, “ Performance enhancement of single slope passive solar still with heat pipes”, 22nd International Water Technology Conference, IWTC 2019 organized by International Water Technology Association, Ismailia, Egypt, 12-13 September 2019.
4. Godwin Barnabas S, Rajakarunakan S, **Sivakumar V**, Ramar S, Sankaran M, Sivakumar P, Sivagurunathan K 2019, 'Composite materials from wood and rubber waste", International Conference on Advances in Materials Processing and Characterization (ICAMPC-2019) Organized by Departments of Aeronautical, Automobile, Mechanical and Mechatronics Engineering, Bannari Amman Institute of Technology, Sathyamanagalam.

5. Godwin Barnabas S, **Sivakumar V**, Venkatesh R, Prabhakaran R, Selvasundar T, Karthik alias siva T, "New green manufacturing model for end of life of automotive components", International Conference on Advances in Materials Processing and Characterization (ICAMPC-2019) Organized by Departments of Aeronautical, Automobile, Mechanical and Mechatronics Engineering, Bannari Amman Institute of Technology, Sathyamanagalam.
6. Rajendran DR, Ganapathy Sundaram E, Senthilkumar S, **Sivakumar V**, "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 (IEEES 11) organized by Department of Automobile Engineering, SRM IST, Kattankulathur, 14 -18 July 2019.
7. Rajendran D, Ganapathy Sundaram, E, Jawahar P, Kabeel A, Muthumanokar A, Ravishankar S, **Sivakumar V** 2019, 'CFD Studies on Multi Cavity Solar Receiver with Two Heat Transfer Fluids', presented in 5th International Conference on Scientific Research ISR 2019 Renewable Energy and Water Sustainability, Sharam El Sheikh, Egypt, 26th to 29th March.
8. **Sivakumar V**, Ganapathy Sundaram E, Sakthikiran B, Sanjay Krishnan T & Riyaz Hussain A 2015, 'Effect of heat capacity of basin material and glass cover on distillate yield of single slope passive solar still - A theoretical investigation', presented in International Conference on Sustainable Energy Resources, Materials and Technologies, Chennai, 8th & 9th January.
9. **Sivakumar V** & Ganapathy Sundaram, E 2012, 'Convention of thermal energy storage materials in solar still: A review', presented in International Workshop and Conference on Renewable Energy and Climate Change - Exploring Opportunities for Sustainable Development, Madurai, 5th to 7th April.
10. Ajeethkumar K, Bharath kumar R, Gopal raj S, Harsath Samuel B R, Rajakarunakaran S, **Sivakumar V** 2019, 'Improvisation of single slope passive solar still performance by using heat pipes', presented in National Conference on Recent Trends in Mechanical Engineering (RTME 2019) Organized by IE(I) Mechanical Students Chapter and SAE India, Dr.Sivanthi Aditanar College of Engineering, Tiruchendur, on 22nd March.
11. **Sivakumar, V** & Ganapathy Sundaram, E 2017, 'An Experimental Investigation of the Effect of Heat Pipes Usage in Single Slope Passive Solar Still', presented in National Conference on Emerging Research and Advances in Mechanical Sciences (ERAMS-2017), Velammal Engineering College, Surapet, on 18th March.

12. **Sivakumar, V** & Ganapathy Sundaram, E 2015, 'Effect of Heat absorbing basin material on distillate yield of single slope passive solar still - an experimental investigation', presented in National Conference on Emerging Research and Advances in Mechanical Sciences (ERAMS-2015), Velammal Engineering College, Surapet.

4.3 Book/Book chapter publications

NIL

5 Funded Projects

S.No.	Title of the project	Funding Agency	Duration	Amount	Status
-	-	-	-	-	-

6. Ph.D. guidance

Sl.No	Scholar name	University	Topic	Status
-	-	-	-	-

7. Short term Courses / Seminars /FDP/Workshop/ConferenceAttended:

Sl.No	Title of the event	Organized by	Date	
			From	To
1.	NITTT – Orientation Training Programme for Mentors	National Initiative for Technical Teachers Training	01.02.2021	05.02.2021
2.	Weld Overlay Solutions for Wear Protection	Indian Welding Society, Trichy	21.01.2021	---
3.	"Ideation and Proposal Writing Workshop"	RuTAG IIT Madras and PALS	19.12.2020	-
4.	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
5.	ATAL sponsored FDP on "Energy Storage"	AICTE	05.10.2020	09.10.2020
6.	Five days online workshop on "Universal Human Values"	AICTE	10.08.2020	14.08.2020
7.	Role of Faculty in Challenging Situation	Training and Placement Cell in association with RIT-ISTE Faculty Chapter, Ramco Institute of Technology	26.07.2020	---

Updated as on 15.02.2021

Sl.No	Title of the event	Organized by	Date	
			From	To
8.	Three-day national level webinar on "Advances in thermal sciences and fluid flows"	Department of Mechanical Engineering, MVSR Engineering College	24.07.2020	26.07.2020
9.	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
10.	AICTE Training and Learning (ATAL) Academy online FDP on "Internet of Things (IoT)"	National Institute of Technology, Warangal	22.06.2020	26.06.2020
11.	Six-day FDP on "Energy Management Systems"	Department of Electrical and Electronics Engineering, R.M.D.Engineering College, Kavaraipettai	08.06.2020	13.06.2020
12.	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 an Microsoft	30.05.2020	03.06.2020
13.	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

Sl.No	Title of the event	Organized by	Date	
			From	To
14.	One-day workshop on “International online workshop on Research Methodology - Defining & Redefining”	Neville Wadia Institute of Management Studies & Research, Pune	28.04.2020	-
15.	Online training on “Solar PV Installation”	MSME Technology Development Centre (PPDC)	27.04.2020	29.04.2020
16.	Three day Faculty Development Program at Teaching Learning Centre	IIT M PALS	12.11.19	14.11.19
17.	Five day FDP on "Basics in Computational Fluid Dynamics"	Mepco Schlenk Engineering College	28.05.19	01.06.19
18.	Faculty Advisor Meeting	ISHRAE Madurai Chapter	18.05.19	18.05.19
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
20.	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
21.	Five day residential workshop on Inspiring Engineers through Innovation Creative Models and Machines	IIT Gandhinagar	08.01.19	12.01.19
22.	FDP on Recent trends in Solar Energy Conversion and Storage	Mepco Schlenk Engineering College	12.11.18	14.11.18
23.	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
24.	Internal auditor training on ISO 9001:2015	R.M.K. Engineering College	30.10.17	31.10.17

Sl.No	Title of the event	Organized by	Date	
			From	To
25.	One day workshop on Advanced Researches in Thermal Science	Velammal Engineering College, Chennai	05.05.17	05.05.17
26.	One day workshop on Intellectual Property Rights & Patent Drafting	R.M.K. Engineering College	28.01.17	28.01.17
27.	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
28.	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
29.	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
30.	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
31.	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
32.	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

Sl.No	Title of the event	Organized by	Date	
			From	To
33.	TEQIP sponsored two day faculty development programme on "Nanofluids"	Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai	05.12.13	06.12.13
34.	FDP on "Engineering Thermodynamics"	College of Engineering Guindy, Anna University	10.06.13	17.02.13
35.	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
36.	Two days international conference on Advanced materials and processing (ICAMP 2011)	R.M.K. Engineering College	19.12.11	20.12.11
37.	Three day Quality Improvement Programme on "Instructional Design and Delivery"	National Institute of Technical Teachers Training & Research	16.12.10	18.12.10
38.	One day workshop on "Energy Conservation Techniques"	Velammal Engineering College, Surapet	22.11.10	22.11.10
39.	"Acharya, an intensive training to achieve professional excellence and life mastery"	R.M.K. Engineering College	30.07.10	30.07.10
40.	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
41.	National level one day workshop on "Computational Fluid Dynamics"	S.A. Engineering College, Chennai	19.02.09	19.02.09

8. Short term Courses / Seminars /FDP/Workshop/Conference organized:

Sl.No	Title of the event	Organized by	Date	
			From	To

Sl.No	Title of the event	Organized by	Date	
			From	To
1.	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	-
2.	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	-
3.	"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	-
4.	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	-
5.	A Five day Webathon on Future topics in Mechanical Engineering	Department of Mechanical Engineering, RIT	18.5.2020	22.05.2020
6.	Webinar on “Bharat IV/VI Stage norms, Design, considerations and road map to EV”	RIT-MECH CAD CENTRE, Department of Mechanical Engineering, RIT	16.05.2020	-
7.	Webinar on “Automotive Design Sculpting”	RIT-MECH CAD CENTRE, Department of Mechanical Engineering, RIT	14.5.2020	-

Sl.No	Title of the event	Organized by	Date	
			From	To
8.	Student Solar Ambassador 2019	Ramco Institute of Technology (Workshop is Authorized by IIT Bombay)	02.10.19	02.10.19
9.	One day workshop on "Working of Passenger car, Motor Cycle & Car Gear Box"	R.M.K. Engineering College	11.12.18	11.12.18
10.	One day workshop on "Automotive Engine Dismantling and Assembly"	R.M.K. Engineering College	27.12.17	27.12.17
11.	Awareness program on "Industry 4.0"	R.M.K. Engineering College	10.07.17	10.07.17
12.	"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

9. 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	Massachusetts	September 2020

Updated as on 15.02.2021

	Laplace Transform	Institute of Technology	
10.	Operations Research: an Active Learning Approach	The Hong Kong Polytechnic University	September 2020
11.	Multi Variable Calculus	Massachusetts Institute of Technology	2019-2020

10. Patents filed/awarded

- Co-inventor of **One Patent**. Patent application number: 201641013417A Publication Date : April 21, 2016.

11. Membership in Professional societies

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

12. Awards, Recognition & Achievements

- 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**.
- 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.
- 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

- 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.
- 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.

Updated as on 15.02.2021

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

- 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 and Environmental Science Pollution Research.