Official Address

Dr. ESWARAMOORTHY MUTHUSAMY

Professor ,School of Mechanical Engineering Shri Mata Vaishno Devi University Kakryal, Katra-182 320, Jammu & Kashmir State, India



ACADEMIC QUALIFICATIONS

Doctor of Philosophy (Ph.D.)

Thesis Title 'Studies on Solar Parabolic Dish Thermoelectric Power Generator' Thesis Defended on 1st April 2011 and Degree Awarded on 1st October 2011 by National Institute of Technology Tiruchirappalli (www.nitt.edu) Mentor: Dr. S. Shanmugam, Professor of Mech., NIT-T

Master of Technology (M.Tech.) in Energy Technology (Thermal Science Engineering) completed in June 2004, First Class with 7.98 CGPA in 10 point scale from Pondicherry Engineering College (www.pec.edu) affiliated to Pondicherry University, Pondicherry. Result: First Class with 7.98 /10 (CGPA). Thesis Mentor: Dr N.Alagumurthi, Professor of Mech.,

<u>Courses:</u> Advanced Heat Transfer, Advanced Fluid Mechanics, Advanced Thermodynamics and Power Cycles, Instrumentation and Measurement, Renewable Energy at its utilization, Energy Management and Conservation Technology

Bachelor of Engineering (B.E.) in Mechanical Engineering completed in April 1995, First Class with 64.85% from Kongu Engineering College, (www.kongu.ac.in) was affiliated to Bharathiar University, Coimbatore. Project Guide: Dr PSS Srinivasan, Principal, KIOT, Salem,India Result: First Class with 64.85%

<u>Courses:</u> Fluid Machinery, Engineering Thermodynamics, Thermal Power Engineering, Mechanics of solids, Non conventional Energy Resources and other Under Graduate level mechanical engineering courses.

RESEARCH INTERESTS:

Solar Photovoltaic-Thermoelectric Energy System, Hybrid energy system – solar thermal system coupled wind energy generator, Thermoelectric power generation embedded on solar thermal collector and waste heat energy recovery, Energy and exergy analysis, Energy efficient and pollution free cooking stoves, Hydrogen generation from renewable energy sources like solar wind and biomass

RESEARCH PROJECT UNDERTAKEN

Project Proposal entitled 'Experimental Investigation on Solar Photovoltaic-Thermoelectric Generator with Latent Heat Effects' by Vision Group on Science and Technology, Government of Karnataka under SMYSR scheme sanctioned INR 400000/-

Project Proposal entitled 'Multifunction Coconut Dehusking and Coir Yarn Rope Spinning Machine' by Karnataka State Council for Science and Technology, Government of Karnataka under 40th Student Project Programme (SPP) scheme sanctioned INR 6000/- with the budget value of INR 19000/- (Completed)

Project Proposal entitled 'Experimental Evaluation of Solar Parabolic Dish Cooker with Thermal Storage' supported as Motrola Scholar Award 2016 from Foundation for Advancement of Education and Research, Bengaluru (Completed)

Project Proposal entitled 'Design, Development and Experimental Evaluation Of Hybrid Fresnel Lens Solar Stove' by Karnataka State Council for Science and Technology, Government of Karnataka under 39th Student Project Programme (SPP) scheme sanctioned INR 5000/- with the budget value of INR 15000/- (Completed)

Project Proposal entitled 'Design, Development and Experimental Evaluation of V Trough Solar Air Heater for Drying Applications' by Vision Group of Science and Technology, Government of Karnataka under Technology Related Innovative Projects (TRIP) scheme with the budget value of **INR 30000/-** (Completed)

Project Proposal entitled 'Biogas Production From Paper Waste Blend With Cow Dung by Karnataka State Council for Science and Technology, Government of Karnataka under 38th Student Project Programme (SPP) scheme sanctioned INR 5000/- with the budget value of INR 12000/- (Completed)

Project Proposal entitled 'Performance Study on Solar Still Integrated with Nano-Composite Phase Change Materials' by Vision Group of Science and Technology, Government of Karnataka under Technology Related Innovative Projects (TRIP) scheme with the budget value of **INR 40000/-** (Completed)

Project Proposal entitled 'Performance Study on Biomass Stove Thermoelectric Generator with Phase Change Materials' by Karnataka State Council for Science and Technology, Government of Karnataka under 37th Student Project Programme (SPP) scheme sanctioned INR 5500/- with the budget value of INR 25000/- (Completed)

Kerala State Council for Science, Technology and Environment has sanctioned the financial assistance of **INR 15000/-** for the M. Tech student project titled "Performance evaluation of an improved solar still with

latent heat effects and nano-materials" for the year 2013-14.

Kerala State Council for Science, Technology and Environment has sanctioned the financial assistance of **INR 12000/-** for the M. Tech student project titled "Experimental evaluation of V-trough solar cooker receiver surface using nano-materials coating" for the year 2013-14.

Tamilnadu State Council for Science and Technology has sanctioned the financial assistance of **INR. 5000/-** for the student project research proposal titled on "Performance analysis of V groove solar air collector for drying applications" for the year 2007-08 for the group of three member team [Project duration:06 months] (Completed)

SPONSORED SEMINAR/WORKSHOP/CONFERENCE ORGANSIED

An Entrepreneurship Awareness Camp (EAC) sanctioned for the academic year 2018-2019 at ACS College of Engineering, Bangalore with the financial support of **INR. 40000/-** from DST-NIMAT Programme

An Entrepreneurship Awareness Camp (EAC) was organized during academic year 2017-2018 at ACS College of Engineering, Bangalore with the financial support of **INR. 40000/-** from DST-NIMAT Programme (Completed)

An Entrepreneurship Faculty Development Programme (FDP) organized during 16th -30th January 2017 at ACS College of Engineering, Bangalore with the financial support of **INR. 200000/-** from DST-NIMAT Programme (**Completed**)

An Entrepreneurship Awareness Camp (EAC) was organized during 18th -20th Feb 2016 at ACS College of Engineering, Bangalore with the financial support of **INR. 20000/-** from DST-NIMAT Programme (Completed)

A two day national workshop on 'Challenges and Innovation on Renewable Energy Conversion Technologies' organized at ACS College of Engineering, Bangalore with the financial support of INR. 53000/- from Ministry of New and Renewable Energy, Government of India during 25th -26th Feb. 2016 (Completed)

A two day national seminar on 'Energy Efficient and Sustainable Building' being organize at BTL Institute of Technology, Bangalore with the financial support of INR. 124000/- from Ministry of New and Renewable Energy, Government of India

A two day national seminar on 'Recent Advances in Renewable Energy Technologies' was organized at Vimal Jyothi Engineering College, Kannur during 29th -30th May 2013 with the financial support of **INR. 50000/-** from Kerala State Council for Science and Technology, Environment,

Government of Kerala

A two day National Workshop on Issues and Innovations on Solar Energy Conversion System at Vimal Jyothi Engineering College, Kannur was sanctioned with the financial grant of **INR 20000/-** from Council for Science and Industrial Research, Government of India

A two day National workshop on Sustainable Energy Engineering at Vimal Jyothi Engineering College, Kannur Grants received to organize from Ministry of New and Renewable Energy, Government of India with the budget value of INR 50000/- (completed)

COUNTRY VISITED

Guarantee letter **received** with grant covering travel from **DST** to participate in International Conference on SEEP 2017 held at Slovenia during July 2017.

An invitation received with grant covering travel and other expense from ICTP- Trieste Italy to participate a one week advanced school on 'Entrepreneurship for Scientist and Engineers from Developing Countries' during 30th March 2016 to 05th April 2016.

An **invitation received** with grant covering travel and other expense from 'International Conference on Solar Energy for World Peace 2013' to be held at Istanbul-Turkey to oral presentation during 17th -19th August 2013.

An **invitation received** with grant covering travel and other expense from **ICTP- Trieste Italy** to participate a one week advanced school on **'Hydrogen Energy System'** during 13th -18th June 2011.

PROFESSIONAL EXPERIENCE				
Professor	ACS College of Engineering, Bengaluru-560078/	18 th May 2012 to 16 th August		
	BTL Institute of Technology, Bangalore-560099/	2018		
	Vimal Jyothi Engineering College,Kannur-670632/			
	RajaRajeswari College of Engineering, Bangalore-			
	560074			
		06 th January 2011 to 15 th May		
	Adhiyamaan College of Engineering, Hosur-635109	2012		
	Admyamaan Conege of Engineering, Flostif-055109	7 th February 2005 to 03 rd		
		January 2008		
Lecturer	Dayananda Sagar College of Engineering,	March 2004 to December		
	Bangalore-560078	2004		
	Tamilnadu College of Engineering, Coimbatore-	December 2002 to January		
	641659	2004.		

	Nanjappa Institute of Technology, Coimbatore-	May 1996 to September		
	641659	2001.		
Work Manager	er Gayathiri Industries, Ganapathy-641006 January 1996 to April			
	Coimbatore			
Associate	Annai JKK Sampoorani Ammal Polytechnic, TN June 1995 to January 1996			
Lecturer	Palayam-638 506, Gobi-Tk, Erode-Dt.			
ADMINSTRATIVE EXPERIENCE				
Head	Department of Mechanical Engineering, ACS	September 2013 to		
	College of Engineering and Department of	September 2017		
	Mechanical Engineering, BTL Institute of			
	Technology, Bengaluru			
Head (R&D)	ACS College of Engineering, Bengaluru	September 2017 to June		
		2018		

RESEARCH GUIDANCE

Acted as external guidance to Dr. K. Senthilkumar, Ph.D. thesis titled 'Thermal Analysis of Twin Cylinder Diesel Engine Exhaust Heat Recovery System Using Concentric Tube Heat Exchanger With Different Inner Tube Geometries 'Anna University, Chennai December 2014 (Status: Degree Awarded in December 2015)

Mr.Shivalingaiah completed M.E. Thesis entitled "Performance Analysis of energy efficient panel air conditioner for CNC machine control panel" Anna University Chennai, in April 2012.(Outcome:01 Journal Paper in Scopus Indexed Journal)

Mr. Rajasekhar completed M.Tech. Thesis entitled "Experimental Evaluation of Single Slope Solar Still integrated with Nano composite Phase Change Materials" VTU, Belagavi, in June 2014.(Outcome: 01 Journal Paper in Scopus Indexed Journal)

Mr. Vikas Kumar Methre completed M.Tech. Thesis entitled "Exergy Analysis of Solar Still Integrated Nano-Composite Phase Change Materials" VTU, Belagavi, in August 2014.(Outcome: 01 Journal Paper in Scopus Indexed Journal)

Mr. Naveen Nair completed M. Tech. Thesis entitled "Design, Analysis and Experimental Studies of Biomass Stove Thermoelectric Generator" VTU, Belagavi, in August 2016.

Mr. Manuprasad completed **M. Tech.** Thesis entitled "Bus Body Analysis for Different Loading Condition" VTU, Belagavi, in July **2017**.

PH.D Programme Supervising: 07

EXTERNAL EXAMINER for Ph.D thesis

Ph.D. thesis entitled "Study of Heat Transfer and Fluid Flow Through Microchannel Heat Sink" evaluated and examined as member of oral board examination Anna University Chennai **June 2018**

Ph.D. thesis entitled "Studies on the Engine Performance Analysis and Emission Reduction Using Bio-Diesel from Goat and Sheep Fats" evaluated and examined as member of oral board examination Anna University Chennai **December 2017**

Ph.D. thesis entitled "Performance studies on liquid desiccant dehumidifier of air conditioning system" evaluated and examined as member of oral board examination Anna University Chennai September 2015

Ph.D thesis entitled "Experimental investigation on effect of injection timing and injection pressure on a stationary direct injection diesel engine fueled with preheated rice bran vegetable oil" evaluated and examiner as a member of oral board examination appointed by Anna University Chennai during November 2012

LANGUAGE PROEFFICIENCY SKILL

Secured First Class In Tamil Language Skill Test Conducted By Tamilnadu Tamil Pandit Association

GUEST LECTURE DELIVERED

IIT's	Invited Talk	STTP	Workshop/Seminar	Total
03	04	03	01	14

Invited Guest Lecture was delivered on the topic of **Solar Photovoltaic-Thermoelectric Hybrid System** at Renewable Energy Conference & Expo, Bolgatty Palace Event Centre, Cochin, Kerala, on 25th October 2017.

Invited Guest Lecture was delivered on the topic of 'Emission Control in I.C. Engines' to Students of Automobile Engineering at The Oxford College of Engineering, Bengaluru, Karnataka on 27.04.2016.

Invited Guest Lecture was delivered on the topic of 'Sustainable Energy Sources' to Students of Mechanical Engineering at Sanjivini College of Engineering, Kopargaon, Maharashtra on 09.01.2016.

Guest Lecture was delivered on the topic of 'Preservation food and safety using Solar Energy' in AICTE sponsored Faculty Development Course on 'Trends in Harnessing Food Safety & Quality: Indian Prospective' was held at Centre for Rural Development and Technology, IIT Delhi during 01st -04th December 2015.

Invited Guest Lecture was delivered on the topic of 'Sustainable Energy Engineering' to Students of Automobile Engineering at The Oxford College of Engineering, Bengaluru on 09.11.2015.

Guest Lecture was delivered on the topic of 'Thermodynamic analysis of Solar Thermoelectric Generator' in AICTE sponsored Faculty Development Course on 'Advances in Solar Energy Technologies' was held at Centre for Energy Studies, IIT Delhi during 09th -15th December 2014.

Invited Guest Lecture was delivered on the topic of *Advances in Thermal Energy Storage* in VTU sponsored Faculty Development Course on 'Solar Energy and Thermal Engineering' was held at Ghousia College of Engineering, Ramanagaram, Bangalore on 22.08.2013.

Invited Key note speaker was delivered on the topic of Biomass *Cooking Stove – Thermoelectric Generator* in International Workshop on Challenges and Prospects in Power Generation Systems using Biomass organized by <u>VIT University</u>, <u>Vellore</u> during 27th-28th July 2012.

Invited Guest Lecture was delivered on the topic of *Solar Hydrogen Generation System* in Indian Engineering Congress 2011 being organized by <u>Institution of Engineer (India)</u>, Palace Ground, Bangalore_during 16-17 December 2011.

Invited Key note speaker delivered on the topic of *Innovations in Solar Micro Power Generation* in International Workshop on Challenges and Innovation in Renewable Energy Production organized by <u>VIT University</u>, <u>Vellore</u> during 24th-25th November 2011.

Invited Guest Lecture was delivered on the topic of *Solar Micro Power Generation* AICTE sponsored Faculty Development Course on Emerging Trends in Energy Sources was held at Goushika <u>College of Engineering, Ramanagaram, Bangalore</u> on 23.06.2011.

Invited Guest Lecture was delivered on the topic of *Solar Power Generation: An Over view* AICTE sponsored Faculty Development Course on Emerging Trends in Energy Sources was held at Goushika College of Engineering, Ramanagaram, Bangalore on 23.06.2011.

Invited Guest Lecture was delivered on the topic of *Solar Thermoelectric Power Generation* a MNRE sponsored National Seminar on Sustainable Future Through Renewable Energy was held at Kongu Engineering College, Perundurai Erode on 01.07.2011.

Invited Guest Lecture was delivered on the topic of *Conversion of Solar Energy into Electrical Energy* a MNRE sponsored National Seminar on Energy Solutions for Developing Green India was held at <u>Kongu Engineering College</u>, <u>Perundurai Erode on 25.02.2011</u>.

MEMBER IN EDITORIAL BOARD

International Journal of Energy Engineering- World Academy of Publishers

International Journal of Integrated Energy System-Serial Publishers

International Journal of Environmental Research and Development (IJERD)-Research India Publishers

REVIEWER

International Journal of Solar Energy Engineering-American Society of Mechanical Engineering (ASME) Publications

International Journal of Applied Physics Letters (APL)- American Institute of Physics

International Journal of Sustainable Energy Technologies and Assessments- Elsevier Publications

International Journal of Energy Conversion and Management -Elsevier Publications

International Journal of Applied Thermal Engineering –Elsevier Publications

International Journal of Sustainable Energy – Taylors and Francis Publications

International Journal of Exergy - Inderscience Publishers

Journal of Renewable and Sustainable Energy - American Institute of Physics

Journal of Renewable and Sustainable Energy - American Institute of Physics

PUBLICATIONS

INTERNATIONAL JOURNAL

Raju K K. and M. Eswaramoorthy (2017) 'Reliability Analysis on Grid Connected Roof Top Solar Photovoltaic Power Plant Using Markov Approach' *Applied Solar Energy* (Under Review).

M. Eswaramoorthy (2016) 'Experimental Evaluation of V trough solar air heater with thermal storage for drying applications , *Applied Solar Energy*, Volume 52, Issue 4, pp 245–250 [SCOPUS INDEX]

Vikas Kumar Methre and M. Eswaramoorthy (2015) 'Exergy Analysis of Solar Still Integrated Nano-

Composite Phase Change Materials, Applied Solar Energy Vol.51 (2) pp: 99-106. [SCOPUS INDEX]

- G. Rajasekhar and **M. Eswaramoorthy** (2015) 'Performance Evaluation On Solar Still Integrated With Nano-Composite Phase Change Materials' *Applied Solar Energy* Vol.51 (1) pp: 15-21. [SCOPUS INDEX]
- **M. Eswaramoorthy** (2015) 'A comparative experimental study of flat and V grove receiver of solar air heater for drying applications' *Energy Sources Part A*: Recovery, Utilization and Environmental Effects Vol.37 (1) pp:68-75. [SCIENCE CITATION INDEX]
- K. Senthilkumar, P. Palanisamy and **M. Eswaramoorthy** (2014) "Experimental Investigation on Tube Side Heat Transfer Coefficient for Wavy Tube Heat Exchanger Using Wilson Plot Analysis", *International Journal of Applied Engineering Research (IJAER)* Volume 9, Number 21;pp. 11751-11762.
- S. Shanmugam, AR. Veerappan and **M. Eswaramoorthy** (2014) "Experimental evaluation of energy and exergy efficiency of solar parabolic dish thermoelectric power generator" *Energy Sources Part A*: Recovery, Utilization and Environmental Effects Vol.36 (17) pp:1865-1870. [SCIENCE CITATION INDEX]
- **M.** Eswaramoorthy, S. Shanmugam AR. Veerappan (2014) "Modeling and analysis of solar parabolic dish thermoelectric generator" *Energy Sources Part A*: Recovery, Utilization and Environmental Effects Vol.36 (14) pp:1531-1539. [SCIENCE CITATION INDEX]
- **M. Eswaramoorthy**, S. Shanmugam and AR. Veerappan (2013) "Experimental Study on Solar Parabolic Dish Thermoelectric Generator" *International Journal of Energy Engineering*, Vol.3 (3), pp.62-66.
- S Lokeswaran and **M Eswaramoorthy (2013)** "An Experimental Analysis of a Solar Greenhouse Drier: Computational Fluid Dynamics (CFD) Validation" *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects,* Vol.35 (21), pp:2062-2071 [SCIENCE CITATION INDEX]
- K Sampathkumar, TV Arjunan, **M Eswaramoorthy,** P Senthilkumar (2013) "Thermal Modeling of a Solar Still Coupled with Evacuated Tube Collector under Natural Circulation Mode—An Experimental Validation" *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* Vol.35 (15) pp:1441-1455. [SCIENCE CITATION INDEX]
- **M. Eswaramoorthy** and S. Shanmugam **(2013)** "Solar parabolic dish thermoelectric generator: A Technical study" *Energy Sources Part A*: Recovery, Utilization and Environmental Effects Vol. 35 (5), pp 487-494. [SCIENCE CITATION INDEX]
- S. Lokeswaran and **M. Eswaramoorthy (2013**) "Experimental studies on solar drier system with biomass backup heater" *Energy Sources Part A*: Recovery, Utilization and Environmental Effects, Volume 35, Issue 5, pp 467-475. [SCIENCE CITATION INDEX]
- S. Lokeswaran and M. Eswaramoorthy (2012) 'Experimental evaluation of solar parabolic dish cooker with porous medium' *Applied Solar Energy*, Volume 48, Issue 3, pp 169-174. [SCOPUS

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- M. Eswaramoorthy and S. Shanmugam (2012) "Thermal performance of a low cost solar parabolic dish collector for process heat" *Energy Sources Part A*: Recovery, Utilization and Environmental impacts Volume. 34 issue 18, pp. 1731-1736. [SCIENCE CITATION INDEX]
- **M. Eswaramoorthy** and S. Shanmugam (**2012**) "Numerical model to estimate heat loss in focal receiver of solar parabolic dish thermoelectric generator" *Energy Sources Part A:* Recovery, Utilization and Environmental impacts. Vol.34 Issue.10, pp.959-965. [SCIENCE CITATION INDEX]
- K. R. Dhurai K. Ramalingam R. Velavan and **M. Eswaramoorthy** (2012) "An Experimental study on Biomass Gasifier for Burner System" *International Journal of Energy Engineering*, Vol.2, No.2, pp.37-40. Shivalingaiah. K and **M. Eswaramoorthy** (2011) "Analysis of Energy Efficient Panel Air Conditioner for CNC Machine Control Panel" *International Journal Of Applied Engineering Research* Vol.7, No.3, pp:233-243.
- S. Lokeswaran and **M. Eswaramoorthy** (2011) "Artificial neural networks approach on heat transfer analysis of parabolic dish cooker" *Applied Solar Energy*, Vol.47, Issue: 3; pp: 312-317.
- S. Shanmugam, **M. Eswaramoorthy** and AR. Veerappan (**2011**) "Mathematical modeling of thermoelectric power generator driven by solar parabolic dish collector" *Applied Solar Energy*, Vol.47; Issue:1; pp: 31-35. [SCOPUS INDEX]
- **M. Eswaramoorthy** and S. Shanmugam (**2010**) "Thermodynamic analysis of Solar Parabolic Dish Thermoelectric Generator" *International Journal of Renewable Energy Technology*, Vol.1, No.3, pp. 348-360.
- **M.** Eswaramoorthy, S. Shanmugam and AR. Veerappan (2010) "A review on application for thermoelectric power generation" *International Journal of Integrated Energy System* Vol.2,No.1.pp.69-76.
- **M.** Eswaramoorthy, S. Shanmugam and AR. Veerappan (2010) "Feasibility analysis of solar parabolic dish thermoelectric power generator" *International Journal of Integrated Energy System*, Vol.2,No.1,pp:63-67.
- **M. Eswaramoorthy** and S. Shanmugam **(2009)** "Techno-Economic Analysis of a standalone solar thermoelectric power generator for a rural residential house energy demand" *International Journal of Applied Engineering Research*, Vol.4, Issue.10, pp:1911-1919.

NATIONAL JOURNAL

M. Senthil Prasad, M. Prabaharan & M. Eswaramoorthy (2016) 'A Review on Solar Photovoltaic - Thermoelectric Generator (Hybrid) System for Continuous Power Supply' MGIRED Journal, Volume 2 (Issue 2), pp63-72 (ISSN 2393 9605)

INTERNATIONAL CONFERENCES PROCEEDINGS

- **M.** Eswaramoorthy and S.Shanmugam (2017) 'A Detailed Review on Solar Photovoltaic Thermoelectric Generator Hybrid System' was accepted for presentation and publication in the proceedings of the 10th International Conference On Sustainable Energy & Environmental Protection (SEEP 2017) was held at Bled, Slovenia during 27th -30th June 2017 (DST-SERB Extended the Travel Support)
- **M.** Eswaramoorthy and S.Shanmugam (2017) "Solar Photovoltaic— Thermoelectric Generator Hybrid System Implanted Heat Pipe" was presented and published in the proceedings of International Conference on Contemporary Topics in Power Engineering and Aiding Technologies (ICCPEAT'2017), organized by the Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Puducherry, INDIA during 24-25 February 2017.

Naveen S Nair and **M. Eswaramoorthy** (2016) 'Product Analysis of Biomass Stove Thermoelectric Generator with and Without Fin' was orally presented and published in the proceedings of the International Conference On Recent Trends in Engineering & Technology (ICoRTER'16) was held at Cochin University of Science and Technology (CUSAT) Cochin, Kerala, India during 03rd -05th October 2016.

- **M.** Eswaramoorthy, Shamanth Kumar K R, Moizpasha Patel and Rajesh Kumar B (2016) 'Experimental Study on Solar Parabolic Dish Cooker with Nanomaterial Blend Thermal Energy Storage' was orally presented and published in the proceedings of the International Conference On Recent Trends in Engineering & Technology (ICoRTER'16) was held at Cochin University of Science and Technology (CUSAT) Cochin, Kerala, India during 03rd -05th October 2016.
- M. Eswaramoorthy (2016) "Solar Parabolic Dish Cooker Incorporated Thermoelectric Generator" was accepted for oral presentation at the ICUE 2016 on Cogeneration, Small Power Plants and District Energy. This conference will be held during 14-16 September 2016 at the Bangkok International Trade and Exhibition Center (BITEC), Bang-Na, Thailand.
- **M. Eswaramoorthy** and K. Gurumurthy (**2015**) "Nanocomposite Phase Change Materials: A Technical Review" was orally presented and published in the proceedings of the International Conference on Renewable Energy and Sustainable Development (RESE 2015) was held at Dr. Mahalingam College of Engineering and Technology, Pollachi, India during 10th -13th August 2015.
- G. Rajasekar and M. Eswaramoorthy (2014) "Experimental Study of Solar Still with Nano-Composite Phase Change Materials" was published in proceedings of International Conference on

Renewable Energy (ICORE 2014) organized by Solar Energy Society of India during 8th -9th December 2014 at New Delhi.

- G. Rajasekar, **M. Eswaramoorthy** and SN Kulkarni (**2014**) "Advanced Thermal Energy Storage Materials for Solar Still Applications" orally presented by the first author of the paper Mr. G. Rajasekar and published in proceedings of International Conference on Mechanical Engineering: Emerging Trends and Sustainability was held at MANIT Bhopal, Madhya Pradesh during January 29th 31st 2014.
- **M. Eswaramoorthy** (2013) "Solar Cooker Integrated with Nano-Composite Phase Change Materials" was <u>accepted</u> for oral presentation in International Conference on Solar Energy for Peace 2013 held at Istanbul-Turkey during August 17th -19th 2013.
- **M. Eswaramoorthy** (2012) "A Study on Biomass Stove-Thermoelectric system with Latent heat effects" was <u>orally presented</u> and published in the proceedings of International Technical Symposium on Recent Advances on Energy System 2012 Hyderabad was held during December 19th 20th 2012.
- M. Eswaramoorthy and S. Shanmugam (2012) "A Technical Study on Biomass gasification Stove Thermoelectric generator" has been <u>accepted</u> for oral presentation and publication in the proceedings of Global Conference on Global Warming 2012, Turkey which was held on July 08-12, 2012.
- S. Lokeswaran and **M. Eswaramoorthy (2012)** Heat Transfer analysis of solar parabolic dish cooker: an ANN approach <u>was orally presented</u> and published in the International Conference in Recent Trends in Recent Advances in Energy System organized by Department of Mechanical Engineering was held at Manipal Institute of Technology, Manipal during 05th-08th January 2012. (Awarded as BEST PAPER)

Shivalingaiah K and **M. Eswaramoorthy (2012)** Design and Analysis of Energy Efficient Panel Air Conditioner for CNC Machine Control Panel' Presently orally by Shialingaiah K and published in the Proceedings of International Conference ICAMB 2012 Paper Code: 4089, pp.730-743 (Compact Disc), organized by VIT University, Vellore, India during 09th-11th January 2012.

- **M. Eswaramoorthy**, S. Shanmugam and AR. Veerappan **(2011)** "Biomass Stove Thermoelectric Power Generator for Isolated Rural House in India" was <u>accepted</u> and not presented in the International Conference in Recent Trends in Renewable Energy System organized by Department of Mechanical Engineering was held at Hindustan Institute of Technology and Science, Chennai during 17th-18th March 2011.
- M. Eswaramoorthy, S. Shanmugam and AR. Veerappan (2010) "An analytical equation to estimate

heat loss in the focal receiver of solar thermoelectric power generator" was orally presented in International Conference on Frontiers in Mechanical Engineering was held at National Institute of Technology Karnataka during 20th -22nd May 2010.

- **M. Eswaramoorthy** and S. Shanmugam (2010) "Thermoelectric Power Generation: A Review" was **orally presented** in 1st International Conferences on Advances in Energy Conversion Technologies was held at Manipal University in 9-11, January 2010.
- **M.** Eswaramoorthy and S. Shanmugam (2009) "Energy and Exergy analysis of solar parabolic dish thermoelectric generator" has been <u>accepted</u> for oral presentation and publication in the proceedings of Global Conference on Global Warming 2009, Turkey which was held on July 05-09, 2009.
- **M. Eswaramoorthy** and S. Shanmugam **(2009)** "A Feasibility study on solar parabolic dish thermoelectric hybrid power generation" was **orally presented** at International Conference on Energy and Environment 2009, Taj Chandigarh organized by National Institute of Technology Kurukshetra (Haryana) March 2009 was held at Chandigarah published in open science index: ISSN:2070-3740 page no: 431-435

NATIONAL CONFERENCES PROCEEDINGS

R. Gokulram, Bharathesh B. and **M. Eswaramoorthy** (2015) "An Experimental Study on V-Trough Solar Air Heater With Thermal Storage" accepted for oral presentation and publication in National Conference on Renewable Energy was held at Institution of Engineers (India) Bangalore during 8th-9th September

Vikaskumar K Mehtre and **M.Eswaramoorthy (2014)** "Exergy analysis of solar still integrated with nano composite phase change materials" orally presented by M.Tech student Mr Vikaskumar K Mehtre and published in National Conference on New and Renewable Energy was held at PSG College of Technology Coimbatore during 8th -9th May

- U. Prabaakaran. J. Rajesh Kumar and **M. Eswaramoorthy** (2012) "An Experimental Study on Phase Change Materials and Charging and Discharging Mode" orally presented and published in National Conference on Emerging Trends in Mechanical Engineering was held at Sathyabama University Chennai during 8th-9th March. (*Received BEST PAPER award in Thermal Energy Stream*). Compact Disc pp:215-217.
- M. N. Naveen, T. K. Naveen and **M. Eswaramoorthy**(2012) 'An Experimental Study of Porous Medium in Biomass Stove' orally presented and published in National Conference on Emerging Trends in Mechanical Engineering was held at Sathyabama University Chennai during 8th-9th March. Compact Disc pp: 211-214.
- N. Karthick, P. Karthikeyan, R. Prabhakaran (2012) A. Ramasubramanian and M.Eswaramoorthy "Parametric Study on Solar Air heater Coupled With Phase Change Material orally presented and

- published in National Conference on Emerging Trends in Mechanical Engineering was held at Sathyabama University Chennai during 8th-9th March. Compact Disc pp: 251-254
- S. Dhanasekar, N. Mani Kandan, P. Mohammed Farhan Nadeem S. Mohamed Navasudeen, M. Eswaramoorthy (2012) "A Study on Preparation and Thermo-Physical Properties of Pongamia Oil" orally presented and published in National Conference on Emerging Trends in Mechanical Engineering was held at Sathyabama University Chennai during 8th-9th March. Compact Disc pp: 309-314.
- **M. Eswaramoorthy** and S. Shanmugam **(2009)** "Standalone Energy System for Rural Energy Supply" National Conferences on Renewable Energy was held at Vyas Institute of Engineering and Technology, Jodhpur in November 2009
- **M. Eswaramoorthi** and N. Alagumurthi (2007) "Modeling and simulation of the hybrid fuel cell-Gas turbine cycle" has been accepted for presentation in the two day national conference on Modeling, Simulation and Optimization of Mechanical System (MSOMS'07) organized by Department of Mechanical Engineering, Karpagam College of Engineering, Coimbatore during 23rd and 24th August
- **M. Eswaramoorthi** and N. Alagumurthi (**2005**) "Solar Rankine Engine –Hydrogen Fuel Cell-Hybrid Power Generation System" has accepted for presentation in National Conferences on "Development cum Environmental Friendly Future Industrial Fuels" organized by Centre for Energy Studies, Kumaraguru College of Technology, Coimbatore during 19th –21st May
- **M. Eswaramoorthi** and N. Alagumurthi **(2005)** "Theoretical Investigation on Solar Rankine Engine Hydrogen Storage Hybrid Power Generation System" has accepted for presentation in National conference on Emerging Trends in Energy and Environment sponsored by Government of Tamilnadu, Department of Forestry and organized by Department of Mechanical Engineering, SaiRam Engineering College Chennai on 18,19th February.
- **M. Eswaramoorthi** and N. Alagumurthi (**2005**) "Hydrogen fuel as permanent energy system for 21st Century" has accepted for presentation in IEE sponsored National Conference on Power Engineering Organized by Department of Electrical and Electronics Engineering and at Thapar Institute of Technology Patiala on 28th -29th January. (*paper reference no: 195*)
- **M. Eswaramoorthi** and N. Alagumurthi (**2004**) "Performance analysis of low cost solar water heater coupled with wind driven axial flow pump" Proceeding of the National Conference on Emerging Trends in Mechanical Engineering organized by Padre Conceicao College of Engineering, Goa on 10th -12th September (<u>Page no:383-387.</u>)

QIP SHORT-TERM COURSE ATTENDED

One Week AICTE sponsored course on <u>"Experimental & Empirical Methods in Linguistics"</u> attended at Department of Science and Humanities, Indian Institute of Technology Delhi during 9th to 15th July 2017

One Week AICTE sponsored course on "Brain Science and Technology: Tools and Techniques to understand the Human Brain" attended at Neurocomputing Lab, Dept. of Electrical Engineering, Indian Institute of Technology Delhi during 14th to 18th December 2016

One Week AICTE sponsored course on <u>"Fuels, Combustion and Burners"</u> attended at Department of Mechanical Engineering, Indian Institute of Technology Madras Chennai during 20.06.2016 to 25.06.2016

One Week AICTE sponsored course on <u>"Energy Conservation and Management in Buildings & HVAC Systems"</u> attended at Centre for Energy Studies, IIT Delhi during 06th -13th June 2016.

One Week AICTE sponsored course on <u>'Trends in Harnessing Food Safety & Quality: Indian</u> <u>Prospective'</u> attended at Centre for Rural Development and Technology, IIT Delhi during 01st -04th December 2015.

One Week AICTE sponsored course on "<u>Emerging Trends in Development of Alternative</u> <u>Fueled Dual Fuel Compression Ignition Engine</u>" attended at Centre for Energy, IIT Delhi during July 13-17, 2015

One Week AICTE sponsored course on "<u>Advances in Solar Energy Technologies"</u> attended at Centre for Energy Studies, Indian Institute of Technology Delhi during 09th - 14th December 2014.

One Week AICTE sponsored course on "Recent Advancement Hydrogen Energy in IC Engines" to be attended at Centre for Energy Studies, Indian Institute of Technology Delhi during 07th - 11th July 2014.

One Week AICTE sponsored course on "Recent Advancement in Microfluidics" attended at Department of Mechanical Engineering, Indian Institute of Technology Madras Chennai during 14th - 18th January 2013.

One week AICTE sponsored course on <u>"Energy Conservation"</u> attended at Centre for Energy Studies, Indian Institute of Technology Delhi during 02^{nd} - 8^{th} December 2007.

One week AICTE sponsored course on "State of Art Technologies in I. C. Engines" attended at Department of Mechanical Engineering, Indian Institute of Technology Madras, Chennai during 29^{th} - 2^{nd} June 2006.

One week AICTE sponsored course on <u>"Applied Tribology"</u> attended at Department of Mechanical Engineering, Indian Institute of Technology Mumbai, during 10th –14th May 2005.

One week AICTE sponsored course on <u>"Energy Conservation Practices"</u> attended at Department of Mechanical Engineering, Indian Institute of Technology Guwahati during 12th-17th July 2004.

One week AICTE sponsored course on "Renewable Energies and Alternate Fuels" attended at Department of Mechanical Engineering, Indian Institute of Technology Kanpur during 1st – 5th December 2003.

Two week AICTE sponsored course on "Non-Conventional Energy Sources" attended at Centre for Energy Studies, Indian Institute of Technology, New Delhi during 16th –27th June 2003.

SERC SCHOOL ATTENDED

Three days SERC winder school on "Clean Coal Technologies" attended at Department of Mechanical Engineering, Indian Institute of Technology Bombay during 07th December to 9th December 2011.

SUMMER /WINTER SCHOOL TRAINING ATTENDED

Two week TEQIP (NIT-T) sponsored short term course on <u>"Advanced Alternative Energy Technologies with special Emphasis to Fuel Cells"</u> attended at National Institute of Technology, Tiruchirappalli during 3rd - 13th March 2008.

One week AICTE-ISTE sponsored course on "Renewable Sources and Conversion Technology" attended at Coimbatore Institute of Technology, Coimbatore during 26th –31st May 2003.

WORKSHOP /SEMINAR/CONFERENCES ATTENDED

INTERNATIONAL WORKSHOP

Invited Participant for Four day International Workshop on <u>Design of Sub-System of</u>

<u>Concentrated Solar Power Plants</u> organized by Indian Institute of Technology Jodhpur during 19th

-22nd December 2013 (Travel and Accommodation Expenses Taken care by IIT Jodpur and Asian Development Bank)

Two day International Workshop on <u>Challenges and Prospects in Power Generation Systems</u> <u>using Biomass</u> organized by <u>VIT University</u>, <u>Vellore</u> during 27th-28th July 2012.

Two day International Workshop on <u>Challenges and Innovation in Renewable Energy</u>

<u>Production organized by VIT University, Vellore during 24th-25th November 2011.</u>

Two day International Workshop on "Compact Heat Exchanger" at Indian Institute of Technology Madras on 9th & 10th January 2006.

NATIONAL WORKSHOP

Two day National Workshop on "Energy Efficiency and Environmental Impacts" held at Department of Chemical Engineering, Manipal Institute of Technology, Manipal on 14th and 15^h October 2011.

Two day National Seminar on "<u>Trends and Developments in Sensors and Instruments</u>" held at Department of Electronics and Communication Engineering, Amrita School of Engineering, Bangalore Campus on 8th and 9th April 2011.

One day National Workshop on "Innovation in Teaching and Research Methodology" for college teachers conducted by Department of Computer Science and Engineering, New Horizon College of Engineering, Bangalore on 8th September 2007.

Two day National Conference <u>"Solar India 2007"</u> organized by World Institute of Sustainable Energy (WISE) during 19th and 20th July 2007 at Bangalore.

One day Workshop on "Effective Teaching and Research Methodology for College Teachers" organized by Department of Computer Science and Engineering at Sri Ramakrishna College of Engineering, Coimbatore on 5th September 2006.

STATE LEVEL WORKSHOP

One day State Level Technical Seminar on <u>"Solar Pumping and Hybrids"</u> organized by Solar Energy Society of India, Pondicherry Chapter at Pondicherry on 21st April 2002.

One day *state level Second ISTE annual convention* of Tamilnadu and Pondicherry Section was participated at Sri Ramakrishna College of Engineering, Coimbatore-22 on 18-09-1999.

One day *state level First ISTE annual convention* of Tamilnadu and Pondicherry Section was participated at Kongu Engineering College, Perundurai on 01-08-1998.

SOCIAL ACTIVITIES

Participated in the *special camp on youth for mass programme of functional literacy* was conducted by NSS unit of Kongu Engineering College at Karumandi Sellipalayam Village, Perundurai Taluk, Erode- Dist., during 14-01-1992 to 23-01-1992.

AWARDS RECEIVED

MHRD Fellowship for Ph.D programme from Jan. 2008 to Dec. 2010 at NIT-T

Young Scientist Award from VGST, Government of Karnataka

Best Paper Award in RACE 2012 from MIT Manipal

Senior Educator and Scholar Award from NFED

Reviewer Recognition Award by Editor of Applied Thermal Engineering Journal, Elsevier Publishers

MEMBERSHIP IN PROFESSIONAL BODIES				
Life Member	Indian Society for Technical Education No: LM2266			
Life Member	Solar Energy Society of India	No:1041/LM/03		
Life Member	Youth Hostel Association of India	No.L056293		
Life Member	Computer Society of India, Mumbai	No.01100796		
Life Member	Indian Science Congress Association , Kolkatta	No.11531		
Life Member	Indian Society for Heat and Mass Transfer, IIT-M	No.701		
	Chennai			
Fellow	Institution of Engineers (India)	F-1197327		

COMPUTER PROFICIENCY SKILLS:

Programming: BASIC, FORTRAN 77, Pascal and C

Software: MATLAB, AutoCAD, Macromedia ACTION

Platform: DOS, WINDOWS98,2000, XP

PERSONAL:

Date of Birth	May 2, 1974.
Place of Birth	Kokkirikattu pudur, Erode, TN
Gender	Male
Nationality	Indian
Languages Known	English, Tamil & Kannada
Schooling	(1-5) std., Govt. School. EK Pudur, Erode, TN
	(6-12) std., GHSS, Sivagiri, Erode, TN
Passport Details	Surname: MUTHUSAMY
	Given Name: ESWARAMOORTHY
	Passport No:Z4672821
	Nationality: INDIAN
	Place of Birth :Kokkirikattupudur., (Erode-Dist) Tamilnadu
	Date of Issue: 24/11/2017
	Date of Expiry:23/11/2027
	Place of issue: BENGALURU, INDIA
Marital Status	Married

REFERENCES

Dr. S. Shanmugam (Mentor of Ph.D Thesis)

Professor of Mechanical Engineering,

National Institute of Technology,

Tiruchirappalli -620015,India

Email:shunt@nitt.edu

Dr. PSS. Srinivasan, (B.E., Project Guide)

Principal & Founder Secretary

Knowledge Institute of Technology,

Salem - 637504, TN, India.

Email:pssmech@yahoo.com

Dr.P.Sakthivel

Associate Professor of ECE

Anna University

Chennai-25

Email:psv@annauniv.edu

DECLARATION

Any other specific information will be available on request. I here by declare that the above-furnished details are true to the best of my knowledge and belief.

[M.ESWARAMOORTHY]

Updated on 20th August 2018