

FACULTY PROFILE

1. Bio data

NAME : Dr R SETHUMADHAVAN
DESIGNATION : PROFESSOR
DIVISION : Institute for Energy Studies
DEPARTMENT : Mechanical Engineering
CONTACT NO : 0 94 44 45 46 25



2. Details of Funded Research Project

No	Title	Sponsoring Agency	Amount Rs (Lakhs)
R & D Projects			
1	Development of Coirpith Fueled Gasifier for Thermal Application	ANERT Thiruvananthapuram	1.00
2	R & D Projects on the Biomass based Cold Storage system for Rural Area Applications	MNES Govt. of India	9.5
3	Technology Validation of Biomass Gasifiers for Thermal Applications in Small Scale Manual Dyeing Units		3.58
4	Decentralized Power Generation through Carbonisation & Gasification of Cashew Shell		18.12
Government Funded Projects			
1	Biomass Combustion	Economic & Social Commission for Asia and Pacific	1.0
2	Biomass Gasification	MNES Govt. of India	4.5
3	Development of High Efficient Wood Burning Stove for Domestic Application	Bharathidasan University	0.5
4	Assessment of Biomass Potential for Power Generation	MNES Govt. of India	2.0
5	Performance Evaluation of Solar Powered Irrigation Water Pumps		0.6
6	Performance Evaluation of Wind Mills for Irrigation	TEDA Govt. of Tamilnadu	0.5
7	Pre – feasibility Study on Biomass Assessment for Power Generation in Talukas of TN		1.0
8	Study on Institutional & Community Biogas Plants in TN		0.21
9	Performance Evaluation Study of Energy Generation from Waste Water		0.2
10	National Biomass Resources Assessment Programme – Phase I	MNES Govt. of India	3.0
11	Establishment of Apex Institution for Biomass Potential Assessment in Southern India – Phase II		4.0

No	Title	Sponsoring Agency	Amount Rs (Lakhs)
12	Biomass Assessment Study at Ponneri Taluka	TEDA Govt. of Tamilnadu	1.5
13	Pre – Feasibility Studies on Biomass Availablity in Pondicherry & Karaikkal	DRDA Pondicherry	0.2
14	APEX Institution – Phase III	MNES Govt. of India	7.5
15	DPR Preparation on Thermal Gasifier for KCCL. Alleppey	ANERT Govt. of Kerala	0.4
16	Solar Photovoltaic System for Stand alone Power supply – A survey in Kerala	ANERT Govt. of Kerala	6.5
17	Performance Evaluation of Gasifier	Andaman & Nicobar Administration	0.77
18	Districtwise Biomass Resource Assessment Study in TN	MNES Govt. of India	21.85
19	Districtwise Biomass Resource Assessment Study in Orissa & Kerala		33.0
20	MSW Assessment Study for Trichy Corporation	TEDA Govt. of Tamilnadu	0.75
21	Performance Evaluation Study on the 2 x 300 kWe Thermal Gasifier installed at Modern Rice Mill, Sitharkadu		0.65
22	Development of a Solar Cooker based on Thermal Storage System for Cooking During Night / Early Morning		10.00
23	Design and Development of Energy Efficient Buildings using Solar Passive Architecture		10.00
24	Development and Fabrication of a Small Scale Prototype Drying Chamber using Indirect method for Bagasse Drying Using Waste Heat		20.00
25	Energy Study on Street Lighting in select Panchayats in TN	Keerapalayam	0.60
26		Cuddalore	
27		Parankipettai	
28		Kumaratchi	
29		Kattumannar Kovil	
Private Funded Projects (Recent Past)			
1	Retainership Consultancy for Energy Conservation	Max Pharma Ltd , Mysore	0.6
2	High TDS Waste Water Treatment	Strides Arcolab Ltd, Mangalore	0.6
3	Revamping of Incinerator	Max Pharma Ltd, Mysore	0.5
4	DPR on Thermal Gasifier Usage	TVS Srichakra Ltd, Madurai	0.5
5	Fuel Assessment Sutdy – Gulburga	Green Bio – Energy P Ltd, Bangalore	0.75
6	Fuel Assessment Study – Tuticorin & Manali Talukas	SPIC Electric Power Corporation, Chennai	3.0
7	Pollution Control Study in Thermal Power Plants	Madras School of Economics, Chennai	0.75
8	DPR on Incinerator	Reserve Bank of India, Chennai	0.15

No	Title	Sponsoring Agency	Amount Rs (Lakhs)
9	Fuel Assessment Study – Srivilliputhur	Sevenseas Distilleries, Pondy	1.75
10	Fuel Assessment Study – Mayiladuthurai	Diadem Entrpries Pvt. Ltd, Chennai	1.75
11	Fuel Assessment Study – Tenkasi	TCP Ltd, Chennai	1.75
12	Fuel Assessment Study – Sattur	ETA, LLC, Dubai UAE	1.75
13	Fuel Assessment Study – Vanur	Sane Renewable Energy Pvt Ltd	0.4

3. Consultancy Projects Completed

No	Description	Client	Amount Rs in lakhs
1	National Biomass Resource Assessment Programme for Southern India – Phase IV	Ministry of Non – conventional Energy Sources, New Delhi	9.00
2	Districtwise Biomass Resource Assessment Study in Karnataka State	Ministry of Non – conventional Energy Sources, New Delhi	17.31
3	Biomass Assessment Study at Melur Taluka, Madurai Dt	Tamilnadu Energy Development Agency, Chennai	1.50
4	Resource Assessment Study for MSW of Madurai Corporation of TN	Tamilnadu Energy Development Agency, Chennai	1.65
5	Performance Evaluation Study of the 100 kW _e Gasifier installed at Chatham Island, A & N Islands	NRSE Division, Electricity Dept A & N Islands	0.70

No	Type	Industry / Commercial Establishment	Place
1	Process	Chemplast Sanmar Ltd	Mettur
2		ITC Paper Ltd	Bhadrachalam
3		Kerala Feeds Ltd – General Energy Audit	Thrissur
4		Kerala Feeds Ltd - Compressed Air Audit	
5		Presidency Kid Leather Ltd	Guduvancheri
6		Premier Pigments	Coimbatore
7		SIDCO - Ranipet	Ranipet
8		Tantech Agro Chemicals Ltd	Cuddalore
9		The Kerala Ceramics Ltd	Kundara
10		The Hutti Gold Mines Co. Ltd – General Energy Audit	Hutti Karnataka
11		The Hutti Gold Mines Co. Ltd – Compressed Air Audit	
12	Sugar	M.R. Krishnamurthy Co-operative Sugar Ltd	Sethiathope

No	Type	Industry / Commercial Establishment	Place
13	Pharma & Healthcare	Darshak Ltd	Baroda
14		Dr Reddy's Laboratory	Hyderabad
15		Noveon Diamalt Pvt Ltd	Chennai
16		Orchid Pharmaceuticals and Chemicals Ltd	Alathur
17		Shasun Pharma	Pondicherry
18		Terumo Penpol Ltd	Trivandrum
19	Textile & Dyeing Units	Arumugam Spinning Mills	Chatrapatti
20		Combi Colors	Karur
21		Jansons Textiles	Tiruchengodu
22		K L R F Textiles	Tirunelveli
23		Narmathaa Textile Ltd	Erode
24		Navarang Dye Works	Karur
25		Polyspin Pvt. Ltd	Rajapalaiyam
26		Premier Tex Products (P) Ltd	Srivilliputhur
27		Premier Enterprises	Rajapalaiyam
28		Rajapalaiyam Textiles	
29		Ramaraju Surgical Cotton Mills Ltd	
30		Sandhya Spinning Mills Ltd	
31		Sree Bharathi Mills Ltd	Pondicherry
32		Sterling Spinners Ltd	Dindigul
33	Food	AVT Tea Company	Chulika
34		Balanoor Tea Plantations Ltd	Chickmagalur
35		Erode Dt Co-op. Milk Producers Union (Aavin)	Erode
36		Energy Audit Study in 14 Indcoserve Tea Factories	Nilgiris
37		ENCON Implementation in Indcoserve	Kaikatty
38		Food Fats & Fertilizers Ltd	Tadepalligudem
39		Foster Foods Pvt. Ltd	Thrissur
40		Harrisons Malayalam Ltd	Moongalar
41		Mysore Tea Plantations Ltd	Koppa
42		Nila Sea Foods	Tuticorin
43		Supreme Suguna Foods Company Ltd	Udumalaipet
44		TANFED Cold Storages	Chennai
45	Engineering	Alstom Ltd	Chennai
46		Deepika Rotomoulders Ltd	Bangalore
47		Ernst & Young P. Ltd	Secunderabad
48		ITW India Ltd.	Chennai
49		Turbo Energy Ltd., (TVS Group)	Pulivalam

No	Type	Industry / Commercial Establishment	Place	
50	Commercial & Service	Airport Authority of India	Chennai	
51		Ennore Port Ltd		
52		Gandhi Nagar Sports Club		
53		Sports Development Authority of TN (a) Nehru Indoor & Outdoor Stadium - Phase 1		
54		(b) Hockey (c) Tennis (d) Aquatic Stadia - Phase 2		
55		Veegaland Amusement Park	Cochin	
56	Hotel	Leela Palace Hotel	Bangalore	
57		Pankaj Hotel	Trivandrum	
58	Automobiles & Ancillaries		Padi	
59			Brakes India Ltd	Polambakkam
60				Sholinghur
61		Iijin Automotive Pvt. Ltd	Chennai	
62		Light Alloy Products Ltd	Pulivalam	
63		TVS Srichakra Ltd	Madurai	
64	Banking & Finance	Indian Bank Management Academy for Growth and Excellence	Chennai	
65		Indian Bank		
66		Reserve Bank of India		
67		Unit Trust of India		
68	Construction & Building Materials	Corporation of Madurai, Ward No. 6	Madurai	
69		Corporation of Madurai, Ward No. 9		
70		Forest Industries (Travancore) Ltd	Aluva	
71		India Cements Ltd	Dalavoi	
72		Ran India Steels (P) Ltd	Tiruchengodu	
73		TANSI Structural & Galvanising Works	Mettur Dam	
74		Tamil Nadu Small Industries Corporation Ltd	Trichy	
75	Information Technology	Bharat Sanchar Nigam Ltd	Chennai	
76		Elnet Software City		
77		Infosys Technologies Ltd		
78		TIDEL Park		
79		TVS Electronics		
80		Videsh Sanchar Nigam Ltd		

No	Type	Industry / Commercial Establishment	Place
81	Media & Publishing	Doordarshan Kendra	Chennai
82		Thomson Press	
83	Hospital	Vijaya Heart Foundation & Vijaya Health Centre	Chennai
84	Others	Raj Bhavan	Chennai
85		Salim Ali Centre for Ornithology	Coimbatore
86	Beverages	Tea Estates in South & North East (more than 100 Audits)	Nilgiris, Assam, Darjeeling

4. Details of Training and Workshop Conducted

International Conference (s) / Workshop (s) / Seminar (s)

No	Year	Title	Conference Title	Location / Institution	Volume & Issue No	Page No / paper No
1	1985	Design and Installation of a 10 Ton Solar Powered Cold Storage in India	Proceeding of ISES Congress	Canada		PP 1013 - 1017
2	1988	Biomass Energy Conversion Systems – Combustor and Gasifier	Proceeding of the International Conference on Energy Management & Conservation	India		PP III.2.1 - III.2.8
3	1991	Incineration of Industrial Toxic Wastes – An Efficient Method of Waste Disposal	Proceeding of the XI International (ASME) Conference of Fluid Bed Combustion	Canada	Vol.3	PP 1111 - 1119
4	1992	Energy Conservation through Process and Plant Operational Modifications in a Tannin Extraction Industry in India	Proceeding of the 15 th Annual International Conference on Energy Economics	Tours, France	Vol.1	PP D-19- D-26
5	1993	Firewood as an Energy Source of India - An Overview	Proceeding of 16 th International IAEE Conference on Energy Economics	Indonesia		-
6	1993	An Approach to Economic Progress in India through Energy Conservation in Domestic Sectors - A Case Study Presentation	Proceeding of 16 th Annual International Conference of the International Association for Energy Economics	Bali, Indonesia		-
7	1995	Grate Coal Fired Boiler into a Fluidized Bed Boiler for Agro - Waste Combustion - A Case Study	Proceeding of 14 th International ASME Conference on Fluid Bed Combustion	U.S.A	Vol.1	PP 489 - 496
8	1997	Fluid Bed Incineration - An Effective Tool for Refinery Oil Sludge Waste Disposal	Proceeding of 25 th International AAE Symposium on Advances in Alternative Renewable Energy	Malaysia		PP 408 - 420

No	Year	Title	Conference Title	Location / Institution	Volume & Issue No	Page No / paper No
9	1998	Incineration of Industrial Hazardous Wastes in a FBC Incinerator - An Experience with Fluidized Bed Combustion Technology	Proceeding of the International Conference on Incineration and Thermal Treatment Technologies	USA		PP 529 - 536
10	1998	Performance Evaluation of Solar Photovoltaic Water Pumping System	Proceeding of International Conference on Role of Renewable Energy Technology for Rural Development	Nepal		PP 94 - 97
11	1998	Training Programme on Solar Energy Utilisation	Proceeding of Sixth International Symposium on Renewable Energy Education	India		-
12	2000	Energy Generation from Effluent Stream of a Agro Processing Industry through Anaerobic Route	Millennium International Conference on Renewable Energy Technologies	Madras India		-
13	2002	Biomass Energy Resource for the Future and its Availability	International Conference on Renewable Energy Technologies	New Delhi India		-
14	2002	Workshop on Improved Biofuel Utilization Technologies	Indo Canadian Environment Facility	Chennai India		-
15	2002	Optimization of Cold Storage Systems Powered by Biomass Energy for Rural Area Applications	Proceeding of the World Renewable Energy Congress VII	Colonge, Germany		-
16	2003	Trends in the Modeling of Cocurrent Biomass Gasifiers	Proceeding of the 3 rd International Conference on Renewable Energy for Sustainable Development	Dhaka		-
17	2004	Energy Optimization In Humidification Plants Of Textile Industries	3 rd European Congress Economics and Management of Energy in Industries	Portugal		-
18	2004	Sustainable Energy Options For Villages In Tamilnadu	19 th European Photovoltaic Solar Energy Conference and Exhibition	France		-
19	2004	Design And Development of a Natural Draft Biomass Gasifier	2 nd World Conference & Technology Exhibition on Biomass for Energy, Industry and Climate Protection	Rome Italy		-
20	2004	Energy Optimization in Humidification Plants of Textile Industries	3 rd European Congress Economics and Management of Energy in Industries (ECEMEI)			
21	2004	Sustainable Energy Options for Villages in Tamilnadu	19 th European Photovoltaic Solar Energy Conference and Exhibition			

No	Year	Title	Conference Title	Location / Institution	Volume & Issue No	Page No / paper No
22	2006	Effect of properties of bio residues on their gasification	International Conference on Advances in Mechanical Engineering	Chennai		PP 350 - 353
23	2007	Operational Experiences in a 100 kWe Wood Based Biomass Gasifier Power Plant	Proceedings of the International Conference on Cleaner Technologies and Environmental Management	Pondicherry, India		PP 472 - 476
24	2007	Investigations on certain aspects of gasification of loose bioresidues in a co-current gasifier	International Conference on Advances in Energy Research	Bombay		PP 107-113
25	2008	Comparison of performance of a downdraft biomass gasifier feeding on woody and non-woody loose bioresidues	Renewable Energy Asia – An International Conference & 4 th Sustainable Energy and Environment Forum Meeting	Delhi		PP 891-897
26	2009	Testing of dry cleaned producer gas from biomass gasifier in a D I type diesel engine	International Conference on Advances in Energy Research	Bombay		PP 90-95
27	2010	Wind Mills for Water Pumping in Rural India	International Conference on Wind Turbine Technology & Application	Chennai		PP 378 - 389

National Conference (s) / Workshop (s) / Seminar (s)

No	Year	Title	Conference Title	Location / Institution	Volume & Issue No	Page No / paper No
1	1981	Augmentation of Filmwise Condensation of Steam on Horizontal Copper Tubes Wrapped with Wires in a Helical Spiral Form	Proceeding of the 34 th Annual Session of Indian Institute of Chem. Engrs.,	Madras	Vol 1	PP 84 - 90
2	1981	Performance Evaluation of Spirally Corrugated Tubes with Multiple Helical Starts for Turbulent Flow Heat Transfer to High Prandtl Number Power Law Fluids.	Proceeding of the 6 th National Heat & Mass Transfer Conference, HMT 54 – 81	Madras		PP D.13 – D.19
3	1988	High Efficiency Smokeless Wood Burning Stove	Proceeding of the 5 th Convention of Bio Energy Society of India	Baroda		PP 361-365
4	1991	Effective Utilization of Biomass through Drying and Combustion	Proceeding of 7 th Annual Symposium of Bio Energy Society of India	New Delhi		-

No	Year	Title	Conference Title	Location / Institution	Volume & Issue No	Page No / paper No
5	1991	Revival of Neglected Source of Renewable Energy - Charcoal	Proceeding of the 23 rd National Seminar on Energy options for the 90's – Enfuse	Madras		PP 90 - 96
6	1996	Fluid Bed Gasification of Rice Husk	Proceeding of 20 th NSEC	Calcutta	Vol 1	PP 257 - 260
7	1996	Economics of Solar Assisted Pumpless VARS for Food Preservation Application in Villages	Proceeding of 20 th NSEC	Calcutta	Vol 1	PP 384 - 387
8	1996	Economics of Solar Assisted Cold Storage Systems	Proceedings 20 th NSEC	Calcutta	Vol 1	
9	1997	Combustion of Agro Fuels in an Industrial Boiler	Proceeding of 21 st NSEC	Chennai		PP 589 - 593
10	1998	Water Pumping Wind Mills in Tamilnadu - A Status Report	Proceeding of 22 nd NSEC	Roorkee		PP 535 - 541
11	1999	Renewable Energy – State of the Art	National Conference on Renewable Energy	-		-
12	2000	Energy Generation from Effluent Stream of a Agro Processing Industry through Anaerobic Route	Conference on Renewable Energy Technologies, IIT Madras	Chennai		-
13	2001	Solar Energy - Feed Back Analysis	Conference on Utilization of Solar & Bio Energy	Bangalore		-
14	2001	Energy Audit Methodologies & Typical Case Studies	National Workshop on Renewable Energy and Energy Conservation – Awareness and Strategies	Chennai		-
15	2001	Drawbacks of Existing Method of Operation in Dyeing Industries	Training Programme on Biomass Gasification for Thermal & Electrical Applications	Chennai		-
16	2001	Analysis on Absorption Heat Transformer with Environment Friendly Working fluids	ISME Conference on Products and Design	Chennai		-
17	2001	Drawbacks of Existing Method of Operation in Dyeing Industries	Training Programme on Biomass Gasification for Thermal & Electrical Applications	Karur		
18	2002	Rational Utilization of Industrial Fuels	National Seminar on Future Industrial Fuels	Chennai		-

No	Year	Title	Conference Title	Location / Institution	Volume & Issue No	Page No / paper No
19	2002	SPV based Home Lighting and Street Lighting Systems – Prospects	National Seminar on Use of Solar Energy	New Delhi		-
20	2002	Workshop on Improved Biofuel Utilization Technologies	Indo Canadian Environment Facility	Chennai		
21	2003	Biomass Power	AICTE - ISTE Training Programme	New Delhi		-
22	2003	Solar Thermal Applications	National Seminar on Solar Energy and Other Renewable for Educational Institutions	Hyderabad		-
23	2003	Biomass Resource Assessment for Power Generation	National Training Programme on Best Practices in Bagasse Cogeneration and Biomass Power Generation	Chennai		-
24	2003	Biomass Power Plants – Techno Economic Aspects	State Level Conference of MEDA on Biomass Power	Pune		-
25	2003	Renewable Energy Policies of the Government	National Workshop on Renewable Energy for Sustainable Development	Chennai		-
26	2005	Biomedical Waste Management – a Technical Analysis	Proceedings of National Seminar on Waste Disposal Management & Utilization	Chennai		PP 29 – 34
27	2005	Replacement of conventional fuels with biomass gasifiers for cooking applications – A case study	National Conference Emerging trends in Energy and Environment	Chennai		PP 62-67
28	2005	Pyrolysis of carbonaceous solid e-wastes as a means of disposal and generation of value added fuels and chemicals	Conference on Waste disposal, Management and Utilization	Chidambaram		PP 61-66
29	2005	Determination of pressure drop of air flow on bioresidues fed gasifier of variable configuration	Latest trends in Mechanical Engineering	Pollachi		PP 1-6
30	2005	Experimental studies on yields of pyrolysis of carbonaceous solid wastes	Solar Energy for Sustainable Development in India	Karaikudi		PP 29-30
31	2005	Theoretical Studies and Modelling Analysis of Cashew Shell Gasifier for Eco – friendly Power Generation	National Conference on Emerging Trend in Energy and Environment	Trivandrum		PP 68-73
32	2005	Captive Power Generation using Biomass Gasification	National Conference on Emerging Trends in Energy & Environment	Chennai		PP 55 - 61

No	Year	Title	Conference Title	Location / Institution	Volume & Issue No	Page No / paper No
33	2006	Renewable Energy - Relevance to the Society	National Workshop on Advances in Renewable Energy Sources	Hosur		PP 1 - 20
34	2006	Gasification of Loose Bioresidues in a Packed Bed Gasifier	Conference on Environmental Conservation	Kochi		PP 225 - 232
35	2006	Thermal Processing Municipal Solid Waste	Training Programme on M S W Management - SIDA	Madurai		PP 51 - 63
36	2006	Effect of process variables in a downdraft gasifier	Emerging trends in Mechanical Engineering	Bangalore		PP 112-113
37	2006	Experimental studies on yields of pyrolysis of solid waste and their characteristics	Emerging trends in Mechanical Engineering	Bangalore		PP 111-112
38	2007	Experimental Analysis of Fluid Flow in a Packed Bed Biomass Gasifier	National Seminar on Analyses and Applications of Fluid Flow and Heat Transfer	Jaipur		PP 27 - 32
39	2008	Study on Co-gasification as an effective alternative for Tar Reduction	Application of Emerging Technologies	Hosur.		PP16
40	2008	A Review on Tar Sampling Systems in vogue for Quantification of Tar from Gasification Systems	Challenges in 2020 – Mechanical Engineering Perspective	Mayiladuthurai.		PP 119-126
41	2009	An Innovative solution for drying bagasse	National Conference on Energy Security for Rural Development	Gandhigram		PP 92

5. Details of Journal Publications / Books

a) International Journals

No	Year	Title	Journal Name	Volume & Issue No.	Page No.
1	1983	Turbulent Flow Heat Transfer and Friction in Helical Wire Coil Inserted Tubes	International Journal of Heat & Mass Transfer	Vol. 26	PP 1833 - 1845
2	1985	Condensation of Steam on Single & Multi Start Spiral Wire Wound Horizontal Tubes	Industrial & Engineering Chemistry Journal (Process Design & Development)	Vol.24 No.3,	PP 783-787
3	1986	Turbulent Flow Friction and Heat Transfer Characteristics of Single and Multi - Start Spirally Enhanced Tubes	Journal of Heat Transfer, Transactions of the ASME,	Vol.108 No.1	PP 55-61

No	Year	Title	Journal Name	Volume & Issue No.	Page No.
4	1999	Water Pumping Windmills in Tamilnadu - A Status Report	International Journal of Wind Engineering	Vol. 23 No.5	PP 319 - 322
5	2008	Performance Prediction and Validation of Equilibrium Modeling for Gasification of Cashewnut Shell Char	Brazilian Journal of Chemical Engineering	Vol. 25 No. 03	PP 585 - 601
6	2008	Mathematical Modeling & Experimental Analysis of Cashewnut Shell Char Gasification using Free Energy Minimization,	International Energy Journal	Vol. 9 Issue 1	-
7	2008	Gasification Facets of Cashewnut Shell Char vis-à-vis Casuarina Wood – An Experimental Analysis	Journal of Biobased Materials and Bioenergy	Vol. 2	PP 33–42
8	2008	Comparison on Stoichiometric and Non Stoichiometric Modeling of Gasification of Cashewnut Shell Char – An Experimental Analysis	Energy and Fuels Journal	Vol 22	PP 2070–2078
9	2010	Applicability of Stoichiometric Equilibrium Model for Gasification of Cashewnut Shell Char – An Experimental Analysis	Energy Sources – Part A : Recovery, Utilisation and Environmental Effects (Accepted for publication)	-	-
10	2010	Experimental investigation on the changes in bed properties of a downdraft biomass gasifier	International Journal of Engineering, Science and Technology	Vol 2 No.6	PP 98-106
11		Behaviour of a woody and a loose biomass in downdraft gasifier	Energy Sources - Part A: Recovery, Utilization and Environmental Effects (Accepted for publication)	--	--
12	2013	Experimental studies on biomass bed height and certain process parameters in a fully co-current flow biomass gasifier	Energy Sources - Part A: Recovery, Utilization and Environmental Effects (Accepted for publication)	Vol. 35 No.10	PP 945 - 954
13	2013	Partial substitution of diesel in engine-generator sets with wood based producer gas	International Journal of Engineering Science and Technology	Vol. 5 No. 2	PP 396 - 402
14	2013	Impact Assessment of Energy Efficient Technology Penetration through National Representative Survey of 300 Steel Rerolling Mills units	International Journal of Institute of Research and Journals		

b) National Journals

No	Year	Title	Journal Name	Volume & Issue No.	Page No.
1	1989	Energy Efficiency in Domestic Wet Grinders	Energy Management Journal	Vol. 12	PP 5 - 10
2	1989	Low Cost High Efficiency Wood Burning Mud Stove	URJA Journal	Vol. 26 No. 5	PP 43 - 46
3	1989	Energy Conservation in a Modern Rice Mill	Energy Management Journal	Vol. 13	PP 25 - 30
4	1990	Municipal Solid Wastes - Efficient Disposal and Energy Generation	Energy Management Journal	Vol.14	PP 20- 28
5	1990	Open Solar Drying of Agro-wastes from Industries for use in Boilers as Fuels - A Technical Study	SESI Journal	Vol. 4 (2),	PP 117 - 134
6	1990	Inclined U - tube Manometer to Measure Low Pressures	Invention Intelligence Journal	Vol. 25 No. 10	PP 464 - 465
7	1991	Effect of Wood Burning Rate on Efficiency of Stoves	Energy Management Journal	Vol. 15	PP 10 - 22
8	1991	Fluid Bed Incinerator for Disposal of Industrial Waste	Indian Journal of Environmental Health	Vol. 33 No. 2	PP 225 – 229
9	1991	Thermal Energy Conservation in Aluminium Die Casting Process	Energy Management Journal	Vol. 15	PP 27 - 39
10	1993	Energy Saving Potential in a Tyre Retreading Industry – An Analysis & a Case Study	Energy Management Journal	Vol. 17	PP 35 - 42
11	2001	Biomass Based Cold Storage Systems	Journal on Renewable Energy Technology	Vol.2	PP 7-8
12	2001	Project appraisal methodology envisaged for the benefit of prospective promoters	Journal on Renewable Technologies	Vol 2	PP 19-24
13	2008	Biomass gasifiers for meeting industrial energy needs – a note of caution	Journal on Energy Efficient Manager	Vol 1	PP 32 – 36.
14	2010	Dual fuelling a diesel engine with dry cleaned producer gas from biomass gasifier	Energy and Fuel Users Journal	Vol. LX Book 1	PP 16-22
15	2012	The coal crisis: options available [biomass & municipal solid waste energy utilization]			
16	2012	Biomass as an alternate fuel option for energy security in india - prospects & issues			
17	2013	Renewable energy options viable for adoption in tea manufacturing	UPASI Journal		

Books Publication

No	Author Name	Year	Title
1	Dr. R Sethumadhavan	1997	Proceedings of the National Solar Energy Convention
2		1999	Energy Efficiency and Conservation (EEC) Proceedings of the National workshop on EEC, Dec 1999
3		2000	Management of Biomass Power Generation and Biomass Utilization Technologies – Manual for Training Programme

6. Details of Ph.D / M.S. Scholars (Completed / On going)

PhD – No. of students guided / guiding : 4

No	Name	Title	Year of Award	Status
1	Rajkumar. A.E	Investigation on co – digestion aspects of Sago / Starch Waste Water and Chicken Manure based on field studies	2008	Completed
2	Venkataramanan. M	Studies on Gasification of Cashew Shells and Dual Fueling of producer gas in a CI Engine	2008	Completed
3	Kumararaja. L	Studies on Gasification of Certain Loose Bio – residues in a Packed Bed Reactor	2012	Completed
4	Arun Kumar. C	Investigation of High Efficient Biomass Technologies for Energy Extraction	-	Ongoing

MS – No. of students guided / guiding : 1

No	Name	Title	Year of Award	Status
1	Nazeem R.D	Technical Analysis of Barriers to Energy use reform in the Tea Sector	-	Submitted