

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

Curriculum Vitae



Brief Profile

S. Shanmugam has graduated with honours in Mechanical Engineering in the year 1983 from Coimbatore Institute of Technology, Coimbatore which is aided by Tamil Nadu Government and was affiliated to the erstwhile Madras University. He has received master's degree in Production Engineering in the year 1985 from PSG College of Technology, Coimbatore, which is aided by Tamil Nadu Government and is affiliated to the newly created Bharathiar University, Coimbatore. He has worked as Lecturer in the department of Mechanical Engineering at Guru Nanak Dev Engineering College, Bidar for about two years since 1985. He has joined Indian Institute of Technology Madras, Chennai as a full time research scholar and obtained the degree of doctor of philosophy in the department of Mechanical Engineering in the year 1991.

He has joined National Institute of Technology Tiruchirappalli (NITT)-formerly known as Regional Engineering College- Tamilnadu, as Lecturer in the department of Production Engineering in the year 1991. He is now working as Professor in the department of Mechanical Engineering at NITT. His fields of research include mechanical engineering design, solar thermal energy engineering. He has received six-month technical cooperation training fellowship in the field of solar thermal energy in the United Kingdom.

He has supervised ten research theses leading to the award of the degree of doctor of philosophy. A few research scholars are under his supervision. He has to his credits 60 and 10 research articles published in reputed and refereed international journals and national journals respectively. There are also 30 and 20 research articles that have been published in the proceedings of international and national conferences respectively. He has successfully completed sponsored major research project and has filed two patterns at the national level. He has got very rich teaching and research experiences, which is over a quarter century at NIT itself.

He has authored two books published locally, and contributed full chapter in an engineering book published from the USA.

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- 1. Name** S SHANMUGAM
- 2. Designation:** Professor
- 3. Office Address:** MFB201, Department of Mechanical Engineering
National Institute of Technology
Tiruchirappalli-620015
- 4. Telephone (Direct) (Optional):** **Mobile :** 9443399344
Telephone : 04312503404 **Extn:**3404
- 5. Email (Primary):** shunt@nitt.edu **Email (Secondary)**
:shuntest@gmail.com
- 6. Field(s) of Specialization:** Mechanical Engineering design, Solar Thermal Energy Engineering.

7. Employment Profile

Job Title	Employer	From	To
Lecturer	Gururnanak Dev Engineering College, Bidar, Karnataka 585403	4-3-1985	30-9-1986
Lecturer	Regional Engineering College, Tiruchirappalli 620015	7-8-1991	19-5-1992
Assistant Professor	Regional Engineering College, Tiruchirappalli 620015	20-5-1992	30-6-2005
Professor	National Institute of Technology, Tiruchirappalli-620015	1-7-2005	Till date

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D	I.I.T. Madras, Chennai	1991	-----	Design, and Manufacturing engineering
M.E.	PSG College of Technology, Coimbatore, Tamilnadu./ Bharathiar University, Coimbatore	1985	75.5	Production Engineering
B.E.(Honours)	Coimbatore Institute of Tech.,	1983	75.6	Mechanical

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Examination	Board / University	Year	Division/ Grade	Subjects
	Coimbatore, Tamilnadu/ Madras University			Engineering
PUC	Thiruvalluvar Govt. Arts College, Rasipuram, Namakkal District, Tamilnadu/ Madras University	1978	72.7	Group: mathematics, Physics, and Chemistry
SSLC	Govt. High School Pachal, Namakkal District, Tamilnadu/ Board of Secondary Education, Madras	1977	84.7	Elective: Algebra and Geometry

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Insti tution	From	To
Laboratory Incharge, Heat and Mass Transfer Lab	Department of Mechanical Engineering.	July 2016	Till date
Faculty advisor for Third semester	Department of Mechanical Engineering.	July 2016	Till date
Project coordinator for Postgraduate programme of Thermal Power Engineering	Department of Mechanical Engineering	July 2016	Till date
Project coordinator for Postgraduate programme of Thermal Power Engineering	Department of Mechanical Engineering	June 2015	May 2016
Institute observer of Ph.D selection	Centre for Excellence in Corrosion And Surface Engineering.	22/01/2015	22/01/2015
Chairman, Class Committee & Performance Analysis Committee, eighth semester	Department of Mechanical Engineering.	Jan 2015	May 2015
Chairman, Class Committee & Performance Analysis Committee, eighth semester	Department of Mechanical Engineering.	July 2014	Dec 2014
Chairman, Class Committee & Performance Analysis Committee, eighth semester	Department of Mechanical Engineering.	Jan 2013	May 2013
Chairman, Doctoral committee, Student: L. A.	Department of Mechanical Engineering	19/11/2013	Till date

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Position	Faculty/Department/Centre/Insti tution	From	To
Krishna			
Chairman, Doctoral Committee, Scholar's name: Venkata Kondaiah.	Department of Metallurgical & Materials Engg.	22/08/2013	Till date
Chairman, Doctoral Committee, V Muralidharan	Civil Engg. Department	13/03/2012	28/11/2016
Chairman, Doctoral committee, student: S. Sumesh	Department of Mechanical Engineering	30/10/2012	Till date
Chairman, Doctoral committee, student: Kamatchi R	Department of Mechanical Engineering	29/10/2012	July 2016
Expert Member	Specification and Purchase Committee, Central Library.	14/12/2012	Till date
Chairman	Quarters Allotment Committee.	24/11/2012	27/11/2015
Institute Observer of Ph.D/ MS selection	Department of Computer Applications.	07/08/2012	07/08/2012
External Member, Performance Analysis Committee (PAC), Odd semester	Physics Department.	2011-12	
External Member, PAC, Even Semester	Physics Department.	2011-12	
Department Coordinator, Faculty Selection Committee	Department of Mechanical Engineering	27/07/2012	07/08/2012
Chairman, Doctoral Committee	Civil Engg. Department	23/08/2011	Till date
HoD i/c	Department of Mechanical Engineering	04/10/2011	04/10/2011
Member, Specification Approval Committee of Metrology Lab	Department of Metallurgical & Materials Engineering	08/02/2011	
Member, Scrutiny cum verification Committee	Department of Mechanical Engineering.	08/12/2010	08/12/2010
Chairman, Doctoral Committee	Civil Engineering Department	20/08/2010	
Chairman, Class Committee & Performance Analysis	Department of Mechanical	04/01/2010	31/05/2010

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Position	Faculty/Department/Centre/Insti tution	From	To
Committee, eighth semester	Engineering.		
HoD i/c	Department of Mechanical Engineering	10/12/2010	13/12/2010
HoD i/c	Department of Mechanical Engineering	30/11/2010	03/12/2010
HoD i/c	Department of Mechanical Engineering	04/09/2010	04/09/2010
External Member, PAC to Basics of Programming, Odd Semester	First Year	July 2010	December 2010
Institute Observer, Interview Committee	Dept. of Electrical and Electronics Engg.	12/07/2010	12/07/2010
Institute Observer of Ph.D/ MS selection	Department of Electrical & Electronics Engineering.	13/12/2007	13/12/2007
Member, Inter departmental Committee	Energy and environmental Studies.	17/02.2006	
HoD i/c	Department of Mechanical Engineering.	04/02/2004	19/06/2005
Convenor, Food & Refreshments	Institute Day- Apr. 2005	06/04/2005	28/04/2005
Chairman, Driving School Committee.	Department of Mechanical Engineering.	22/12/2004	20/06/2005
Chairman, Driving School.	Department of Mechanical Engineering.	20/11/2004	21/12/2004
Staff Advisor	Festember 2004.	24/09/2004	26/09/2004
Staff in-charge, Finance Committee	Festember 2004.	24/09/2004	26/09/2004
Staff in-charge, Sponsor Committee	Festember 2004	24/09/2004	26/09/2004
Warden	Diamond Hostel.	01/06/2004	31/05/2005
Convenor	Enquiry Committee.	21/05/2004	
Election Officer	Students Election for President.	12/04/2004	19/04/2004
Warden	Diamond Hostel	01/06/2003	31/05/2004
Staff Advisor	Festember 2003.	26/09/2003	28/09/2003
Member, Committee for Regulations	Hostels and messes.	17/09/2003	

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Position	Faculty/Department/Centre/Insti tution	From	To
Chairman, Catering Committee	Annual Sports Day.	25/02/2003	12/03/2003
Chairman in-charge	Transport Committee.	27/01/2003	30/06/2003
Staff Advisor	Festember 2002.	27/09/2002	29/09/2002
Member, Finance Committee,	Festember 2002.	27/09/2002	29/09/2002
Staff advisor	Festember 2002.	27/09/2002	29/09/2002
Election Officer	Students Election for President.	08/04/2002	11/04/2002
Chairman, T-shirt Purchase committee	Festember and RECFest 2002.	27/09/2002	29/09/2002
Warden	Diamond Hostel.	01/04/2002	31/05/2003
Convenor, Food & Refreshments Committee	College Day.	19/03/2002	03/04/2002
Lab in-charge, Metrology & Quality Control	Department of Mechanical Engineering	28/02/2002	11/02/2005
Staff advisor	Festember 2001.	28/09/2001	30/09/2001
Member, Finance Committee	Festember 2001.	28/09/2001	30/09/2001
Convenor, Food & Refreshments Committee	College Day.	17/03/2001	09/04/2001
Chairman, T-shirt Purchase committee	Festember and RECFest 2001.	28/09/2001	30/09/2001
Co-ordinator for Snack and Food committee	College Day, 2001.	2001	
Deputy Chief Warden	Hostels.	14/06/2001	31/05/2005
Member	Enquiry Committee.	27/09/2001	
Member	Transport Committee.	03/09/2001	
Warden	Ruby Hostel.	01/06/2001	
Member	Transport Committee.	19/01/2001	
Warden	Ruby hostel.	01/08/2000	
Member, Vehicle maintenance	Transport Department.	10/05/2000	
Member	Transport Committee.	02/04/2000	
Member of Committee to	Transport Department.	10/08/1998	10/08/1998

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Position	Faculty/Department/Centre/Insti tution	From	To
select drivers			
Member	Transport Committee.	28/02/1998	
Member	Management Information System.	15/11/1996	
Member	Training and Placement Cell.	14/05/1996	
Member	Transport Committee.	01/07/1996	
Member	Transport Committee.	15/11/1994	31/10/1995
Member	Library Committee.	19/10/1994	31/10/1997
Represented management side	Enquiry Committee.	28/09/1994	
Residential Deputy warden	Agate hostel	16/08/1991	28/02/1993

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
Member, Doctoral Committee, Scholar's name: A. D. Dhass.	Anna University, Guindy campus,	17/07/2014	Till date
Member, Doctoral Committee	Anna University, Chennai.	13/06/2013	Till date
Co-ordinator,	NIT Puducherry, Karaikkal	21/03/2013	Till date
Member, Staff Selection Committee	Periyar Maniammai University, Thanjavur.	19/05/2013	19/05/2013
Member, Board of Governors	National Institute of Technology Puducherry, Karaikkal.	17/12/2012	Till date
Member of Senate	National Institute of Technology Puducherry, Karaikkal.	17/12/2012	Till date
Member, Board of Studies	Govt. College of Engg., Salem, Anna University, Chennai.	06/10/2012	Till date
Member, Doctoral Committee, Scholar's name: Dillibabu V	Anna University, Guindy campus	20/07/2012	Till date
Member, Staff Selection Committee	Periyar Maniammai University, Thanjavur.	13/05/2012	13/05/2012
Member, Doctoral Committee, Scholar's name: K. Velmurugan	Anna University,.	05/01/2012	Till date

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Position	Institution	From	To
Examiner, Open Defence & viva-voce, Ph.D	Visvesvaraya National Institute of Technology, Nagpur.	20/08/2010	20/08/2010
Member, Staff Selection Committee	Periyar Maniammai University, Thanjavur.	30/05/2010	30/05/2010
Member, Board of Studies	Periyar Maniammai University, Thanjavur.	21/05/2010	21/05/2010
Member, Doctoral Committee	Anna University, Tiruchirappalli.	27/11/2009	Till date
Examiner, Open Defence & viva-voce, Ph.D, Visvesvaraya	National Institute of Technology, Nagpur.	10/12/2009	10/12/2009
Member, Staff Selection Committee	Periyar Maniammai University, Thanjavur.	10/05/2009	10/05/2009
Member, Board of Governors	Board of Apprenticeship Training (Southern Region), Chennai.	01/04/2009	31/03/2012
Member, Staff Selection Committee	Periyar Maniammai University, Thanjavur.	28/11/2008	28/11/2008
Member, Board for Promotion of Scientists	Aeronautical Development Establishment, DRDO	28/04/2008	29/04/2008
Member, Oral Examination Board, Ph.D	Anna University, Chennai.	19/08/2008	19/08/2008
Member, Staff Selection Committee	Periyar Maniammai University, Vallam, Thanjavur.	2007	2013
Member, Governing Council	Dr. Navalar Nedunchezhiyan College of Engg., Tholudur, Kadalur Dt.	26/02/2006	03/05/2010
Member, Manpower Planning Committee	TREC-STEP, Tiruchirappalli.	19/11/2004	
Zonal Officer	Anna University Chennai.	01/07/2003	17/04/2006
Member, Inspection Committee	Anna University, Chennai.	11/02/2003	28/02/2013
Member, Staff Selection Committee	Bharathidasan University, Tiruchirappalli.	29/01/2003	29/01/2003
Chairman, Board of Studies, School of Energy	Bharathidasan University, Tiruchirappalli.	06/10/2001	05/10/2004
Subject Expert, Interview Committee	nominated by MHRD	09/06/1995	09/06/1995

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11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2008	Gold medal for the Ph.D. thesis	NIT, Trichy
2007	Top 100 scientists	International Biographic Centre Cambridge, England
2003	Chartered Engineer	Institution of Engineers India

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
1995	Technical Co-Operation Training	Energy Theme in UK	09/1995	04/1996

13. Details of Academic Work

(i) Curriculum Development

- Introduced an elective course on Robot Technology to undergraduate mechanical engineering students
- Introduced a course on Mechatronics to undergraduate mechanical engineering students.
- Framed a core course on Tool Engineering and Design and introduced to final year undergraduate mechanical engineering students
- Introduced changes in and updated the courses Production Technology and Metrology & Quality Control for undergraduate mechanical engineering
- Introduced changes in the courses Solar Energy and Boiler Production Technology respectively for students of Postgraduate in Energy Engineering and Design and Production of Thermal Power Equipment

(ii) Courses taught at Postgraduate and Undergraduate levels

Postgraduate Level

Subject	Sem.	Course/ Branch	Year
ME 747 Project Work Phase-I	III	TPE/ME	2016
ME 747 Project Work Phase-II	IV	TPE/ME	2016
ME 747 Project Work Phase-I	III	TPE/ME	2015
ME 634 Finite Elements Methods in Heat Transfer Analysis	II	TPE/ME	2015
ME 671 Environmental Pollution Control	II	ISE/ME	2015
ME 673 Human Factors Engineering	I	ISE/ME	2013
ME 673 Human Factors Engineering	I	ISE/ME	2012
ME 653 Safety management	I	ISE/ME	2012

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Subject	Sem.	Course/ Branch	Year
ME 642 Finite Elements Methods in Heat Transfer Analysis	II	TPE/ME	2012
ME 634 Finite Elements Methods in Heat Transfer Analysis	II	TPE/ME	2012
ME 671 Human Factors Engineering	II	ISE/ME	2011
ME 659 Regulations for Health, Safety and Environment	I	ISE/ME	2011
ME 606 Computational Fluid Dynamics	II	DPTPE/ME	2010
ME 606 Computational Fluid Dynamics	II	DPTPE/ME	2009
MDP 105 Boiler Production Technology	II	DPTPE/ME	2006
MDPE05/MMTE13 Finite Element Methods	II	ME/PR	2004
MDP 105 Boiler Production Technology	I	DPTPE/ME	2003
MDPE05/MDP0205/MMTE13 Finite Element Methods	II	ME/PR	2003
MDP 105 Boiler Production Technology	II	DPTPE/ME	2002
MDP 105 Boiler Production Technology	I	DPTPE/ME	2002
MDP 0205/MEMT 0105 Finite Element Methods	II	ME/PR	2002
MDP 1106 Boiler Production Technology	I	DPTPE/ME	2000

Undergraduate Level

Subject	Sem.	Branch	Year
ME 303 Heat and Mass Transfer	V	ME	2016
ME 385 Thermodynamics & Fluid Mechanics Lab	III	ICE	2016
ME 306 Design of mechanical Drives	VI	ME	2015
ME 202 Thermal engineering	IV	ME	2015
ME 411 Comprehensive Viva Voce	VII	ME	2013
ME 316 CADD Practice	IV	ME	2013
BEII102 Basci Mechanical Engineering	II	ECE	2013
BE II Basics of Mechanical Engineering	II	First Year	2013
RR101 Engineering Practice	II	First Year	2012
ME 303 Heat and Mass Transfer	V	ME	2011
ME 456 Design of gears and cams	VII	ME	2010
CE 283 Strength of Materials Laboratory	III	ME	2010
ME 456 Design of gears and cams	VII	ME	2009
ME 303 Heat and Mass Transfer	V	ME	2009
ME 456 Design of gears and cams	VII	ME	2009
BMT 403 Mechanical Technology	III	MME	2007
BME 703 Metrology and quality control	VII	ME	2007
ME 456 Design of gears and cams	VII	ME	2007
BMEE05 Finite Element Techniques	VI & VIII	ME/PR	2007
ME 708 Meteorology Laboratory	VI	ME.	2007
BMT 403 Mechanical Technology	III	MME	2006
BME 703 Metrology and quality control	VII	ME	2006
BMT 403 Mechanical Technology	III	MME	2005

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Subject	Sem.	Branch	Year
ME604 Metrology and quality control	VII	ME	2005
ME604 Metrology and quality control	VII	ME	2003
99ME604 Metrology and quality control	VII	ME	2002

(iii)Projects guided at Postgraduate level

Name of the Student	Title of the Project	Name of Co-Guide, if any	Year
Jithin Baby	Performance analysis of a helically coiled tube solar water heater		May 2014
Jithin Baby,	Experimental and CFD analysis on the performance of a helically coiled tube solar water heater,		Dec. 2013
Himanshu Neeraj,	Studies on safety aspects in alcohol distillation column,		May 2013
Himanshu Neeraj,	Safety in trough-CLFR hybrid solar thermal power plant,		Dec. 2012
Sruthin K,	Failure analysis of shape imperfect pipe bends subjected to in-plane opening bending moment,		Dec. 2012
P. Chandrarajan,	Computer aided analysis of shell nozzle junction using finite element method,		Jan. 2002
Srinivas Katta,	Thermal analysis of water wall tubes of 210 MW and 500 MW boilers using finite element technique,		Jan. 2001,
N. Srinivas Reddy,	Static analysis of 500 MW boiler drum hanger rod using finite element technique,		Jan. 2001
P. Santosh Kumar,	Risk analysis at BHEL, Tiruchirappalli,	E. Thirumavalavan	Jan. 2001
T. Padmavathy,	Simulation of electrofluid dynamic generator,	I. Gopalan	Jan. 2000
V. Arun Prasad Raja,	Development of software package for thermal design of evaporative condensers,	I. Gopalan	Jan. 2000,
M. Muthuraman	Design of waste heat recovery steam generator	I. Gopalan	Jan. 2000,
S. Sakthivel,	Design modification of desuperheating station at 210MW Thermal Power Plants,		Jan. 2000
P. Magesh	Design and manufacture of tube sheets for heat exchanger, , ,	G. Venkataramani	Jan. 2000
V. Kanagarajan,	Combination air preheater system for a 500 MW unit,	P. S. Seshadri	Jan. 2000,

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Name of the Student	Title of the Project	Name of Co-Guide, if any	Year
G. Kumaresan,	Balancing of coal air mixture flow in parallel pulverized fuel piping,		Jan. 2000
L. Harikrishnan,	Analysis of thermal sleeve for economiser recirculation line of 210 MW boiler using FEM,	C. Kathirvelu	Feb. 1999
K. Balakrishnan,	Analysis of stresses due to internal pressure at shell-nozzle junction of a pressure vessel using FEM,	C. Kathirvelu	Feb. 1999
K. Saravanavel,	Steady state thermal stress analysis of a 500 MW boiler drum down comer nozzle junction using FEM,	C. Kathirvelu	Jan. 1999
P. Kumar,	Feasibility study of cogeneration power plant in paper plant,		Jan. 1999
D. Ravi,	Design and analysis of platen superheater for 500MW boiler,	V.Senthamarai-kannan	Jan. 1999
K. Nandakumar, ,	Failure analysis of waste heat recovery boiler tube bundles using finite element technique,	S. Soundarapandian	Jan. 1998
N. V. Reddy,	Design of eco-friendly cyclone furnace for 500 MW Boilers		Jan. 1998
S. Mohanasundram	Design of 19TPH steam surface condenser, ,	R. Kesavan	Jan. 1998
K. Ragupathy	Computer aided finite element elasto-plastic creep fatigue interaction analysis of boiler tube bends, , ,	S. Soundarapandian	Jan. 1998
S. Viswanathan	Computer aided finite element analysis of boiler tube bends subjected to in-plane forces and moments, ,	S. Soundarapandian	Jan. 1998
J. Senthil Kumar	Flexibility analysis of a 500MW reheater outlet header, ,	S. Soundarapandian	Dec. 1996
T. Rajesh	Design and manufacture of fretting test rig	S. Karuppasamy	Dec. 1993
A. V. Ravi	Computer aided analysis of 500MW boiler header nipples	S. Soundarapandian	Dec. 1993

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(iv) Other contribution(s)

Experiments/Test Facilities Added

- Duplicated eight number of experiments in the laboratory course of Metrology and Quality control for undergraduate students of mechanical engineering owing to the increased intake of undergraduate students.
- An appropriate fixture to hold thin cylindrical objects has been made for carrying out experiments on Laser micrometer.
- A gear rolling testing equipment has been added to Metrology Laboratory for students' experimentation.
- Developed a research test-rig for study of spur gears.
- Developed test facility to study the feasibility for electricity generation using solar energy, which is being used by M.Tech student

Laboratory Development

- Designed and fabricated solar paraboloidal dish to conduct experiments in the year 2010. Both M.Tech and Ph.D. students are doing project works using this facility.
- A solar radiation measuring equipment was added in the year 2009.
- A digital snap gauges in the metrology laboratory was introduced in the year 2005.
- Air electronic gauges was also made available to the students in the year 2005.
- A digital ultrasonic thickness gauge was added to the experiments in the year 2005 .
- A digital electronic gear tooth caliper was made available to students for checking gears in the year 2005.
- A gear rolling testing equipment has been added to Metrology Laboratory for students' experimentation in the year 2004.
- An appropriate fixture to hold thin cylindrical objects has been made for carrying out experiments on Laser micrometer in the year 2003.
- Designed and developed a research test-rig for study of spur gears in the year 2003

Professional Development

- Chaired a Technical session in National Conference on Recent Trends in Energy Engineering held at National Engineering College, Kovilpatti, 11-12 October 2003

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Patent(s)

- A patent filed on 7-10-2008 has been published on 27-09-2009 in the official journal of the patent office by the Government of India. The details of which is presented below:
Title of invention : Oscillating-bed solar dryer for agricultural produce
Website : www.ipiindia.nic.in, www.patentoffice.nic.in
- Filed to get patent for the invention entitled Thermoelectric power generation using solar Electrolux vapor ammonia absorption refrigeration system, CBR No. 16082, dt. 03/08/2015

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
A major research project: An experimental investigation on compatibility of nodular cast iron as material for power transmission elements. No.F14-17/94 (SRI) dt.4-10-1994, ₹4.856 lakhs	UGC	02/12/1994	31/12/1998	Completed
Modernization of Metrology and Quality Control Laboratory, Lr.F.28-1/2004-TSV dt. 31-3-2005, ₹15 lakhs	MHRD	31-3-2005	31/3/2007	Completed

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role (Supervisor/ Co-Supervisor)	Year of Award
A. Hyacinth Diana	A study on roof-integrated system of transparent multicover solar flat plate collector for expanded fluidized bed agricultural dryer	Supervisor	2005
A. Rajeshkannan	Cold deformation behaviour of sintered iron-carbon-molybdenum and iron-carbon-silicon-copper steels	Co-supervisor	2007
W. Christraj	Theoretical and experimental studies on a sun-trapping paraboloidal dish concentrator	Supervisor	2008
AR. Veerappan	A study on pipe bends with ovality and thinning subject to internal fluid pressure	Supervisor	2008
Syed Ummer M. Thangal	An experimental study on rings from sintered hot forged ferrous preforms alloyed	Co-supervisor	2009

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Name of the PhD Scholar	Title of PhD Thesis	Role (Supervisor/ Co-Supervisor)	Year of Award
	with carbon, molybdenum, silicon and copper		
P. Kumar	Theoretical and Experimental Studies on Oscillating Bed Solar Dryer	Supervisor	2011
M. Eswaramoorthy	Studies on Solar Parabolic Dish Thermoelectric Generator	Supervisor	2011
R. Gurumani	An analysis of performance and contact characteristics of optimized involute spur gears with tooth modifications	Supervisor	2011
T. Christo Michael	On plastic loads in shape-imperfect pipe bends subjected to internal pressure and in-plane closing bending moment.	Co-supervisor	2012
S. Sakthivel	Determination of heating surface area in small capacity boilers	Supervisor	2013
Muthu S	Studies on solar parabolic dish thermo-electric generator with cover	Supervisor	On-going
G. P. Arul	A study on modified oscillating bed solar dryer for agricultural produce	Supervisor	On-going
Srinivas Gugulothu	Design and experimental studies on solar thermal energy storage at Neyveli Lignite Corportaion	Supervisor	On-going
R. Premkumar	Experimental studies on energy from acoustic vibration	Supervisor	On-going

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
1-12 June, 1992.	ISTE summer school on Impact Engineering	National	Participant	Dept of Production Engg, Annamalai University.	Chidambaram
25-26 Feb. 1995	Advances in Industrial Engineering and Productivity	National	Paper presenter	Motilal Nehru Engg. College, Allahabad.	Allahabad

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Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
	Improvement Techniques.				
6-17 Mar. 1995.	QIP course on Advanced Mechanisms Design	National	Participant	Department of Mechanical Engg. IISc, Bangalore.	Bangalore
17 Jan. 1996.	One-day Conference on Renewable energy worldwide	International	Participant	De Montfort University, Leicester	Leicester, UK
26 Feb-8 Mar., 1996.	Curriculum Development workshop	International	Participant	The University of Huddersfield, UK.	Huddersfield, UK.
8-10 Sept. 1998	India RECs-UK Project Workshop on Financial Management	National	Participant	Visvesvaraya Regional College of Engineering Nagpur (VNIT)	Nagpur
8-9, Jan. 2000	Manufacturing Challenges in 21 st Century	National	Paper presenter	BHU, Varanasi	Varanasi
24-25, Feb. 2001	Thermal Power Operation and Maintenance Strategies	National	Paper presenter	Maulana Azad College of Technology, Bhopal	Bhopal
3-4, Mar. 2001	Current Applications of Computers in Design Engg.	National	Paper presenter	J. N. Vyas University, Jodhpur	Jodhpur
Feb.24-Mar. 8, 2003	Short term Training Programme on Robotics and Automation	National	Participant	National Institute of Technology Karnataka, Surathkal	Surathkal
16 Oct. 2012.	A workshop on outcome based accreditation process	National	Participant	NBA, New Delhi	CARE Group of Institution

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Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
	and parameters by NBA, New Delhi				s, Tiruchirappalli
18-19 July 2013	A workshop on outcome based accreditation-procedures and policies of NBA, by NBA, New Delhi.	National	Participant	NBA, New Delhi	SRM University, Chennai
30-31 Oct. 2013	3rd Int. Conf. & Exhibition on Sustainable Energy & Advanced Material.	International	Paper presenter	ICE-SEAM	Melaka, Malaysia

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
Advanced Lecture Series and Workshop on Safety, NIT Tiruchirappalli	National (for DRDO scientists)	14-18 June 2005	Coordinator	NIT Tiruchirappalli
On Fluid Movers.	Local	30 January 2013	Convenor	NIT Tiruchirappalli
Thermal power plant electronics.	Local	18 march 2013	Convenor	NIT Tiruchirappalli
A workshop on industrial production cost estimation.	Local.	20-21 April 2013	Coordinator	Mandaiyur, Pudukottai
A workshop on solar power, NIT Tiruchirappalli.	National	14-15 May 2013	Coordinator	NIT Tiruchirappalli
A workshop on engineering pipe bends, NIT Tiruchirappalli.	National	12-13 July 2013	Coordinator	NIT Tiruchirappalli

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18. Invited Talks delivered

Topic	Date	Inviting Organization
Conservatory solar dryer for agriculturists	23/06/2009	Dr. Navalar Nedunchezhan College of Engineering, Tholzhudur
<i>Solar Energy Scenario in India</i>	17-03-2011	Hindustan University, Chennai

19. Membership of Learned Societies

Organization	Year of induction	Grade of Membership	Remarks
Institution of Engineers (India)	2003	Fellow: F1085901	Effective
Solar Energy Society of India	2003	Life Member: 1051	Effective
Institution of Engineers (India)	2003	Chartered Engineer	Effective
Kalanjiam, Anna University, Chennai.	1998	Life Member: LM 226	Effective
Indian Society for Technical Education	1993	Life Member: LM15046	Effective

20. Academic Foreign Visits

Country	Duration of Visit	Programme
The United Kingdom	November 1995 to April 1996	Technical cooperation training fellowship
Malaysia	30-31 Oct. 2013	3rd Int. Conf. & Exhibition on Sustainable Energy & Advanced Material.

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21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Sumesh S, AR. Veerappan and S. Shanmugam	Assessment of Plastic Loads of Critical Throughwall Circumferentially Cracked Pipe Bends with Structural Distortions Under In-plane Bending	Thin Walled Structures	vol. 669	144-151	2016	1.749
Sumesh S, AR. Veerappan and S. Shanmugam,	Influence of Structural Distortions on Type 304 Stainless Steel 90° Pipe Bends with Critical Circumferential Throughwall Cracks under Bending Moment and Internal Pressure,	International Journal of Applied Engineering Research	Vol. 10 No.24	21200-21204	2015	0.16
T. Christo Michael, AR. Veerappan, S. Shanmugam,	Finite Element Analysis of Shape-Imperfect Pipe Bends under In-Plane Closing Moment	International Journal of Applied Engineering Research	Vol. 10 No.24		2015	0.16
G. Muthu, S. Shanmugam, AR.Veerappan	Numerical Modeling of Year-Round Performance of a Solar Parabolic Dish Thermoelectric Generator	Journal of Electronic Materials	Vol. 44 No. 8	2631 – 2637	2015	1.491
G. Muthu, S. Shanmugam, AR.Veerappan	Mathematical Modeling of Thermoelectric Generator with Solar Parabolic Dish	Applied Mechanics and Materials	vol-104	558-563	2015	0.16
A. Buckshumiyam, AR. Veerappan, S. Shanmugam	Determination of collapse loads in pipe bends with ovality and variable wall thickness under internal pressure and in-plane opening moment	Intl. Jl. of Pressure Vessels and Piping,	vol. 123-124,	1-9	2014	1.078
Sumesh. S., AR. Veerappan, and	A Study on the effect of shape irregularities on collapse loads of pipe bends with critical	Applied Mechanics and Materials	vol. 592-594	980-984	2014	0.11

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
S. Shanmugam	circumferential through wall crack under in-plane closing bending,					
Buckshumiyam A., AR. Veerappan, and S. Shanmugam,	Effect of shape imperfections on thin-walled pipe bends under out-of-plane moment and internal	Applied Mechanics and Materials pressure	vol. 592-594	1050-1054	2014	0.11
G.Muthu, S. Shanmugam, and AR.Veerappan,	Energy and exergy analysis of solar parabolic dish thermoelectric generator	Applied Mechanics and Materials	vol. 592-594	2437-2441	2014	0.11
G. Muthu, S. Shanmugam, AR. Veerappan,	Solar parabolic dish thermoelectric generator with acrylic cover	Energy Procedia	vol.54	2–10	2014	1.13
M. Eswaramoorthy, and S. Shanmugam, AR. Veerappan,	Modeling and analysis of a solar parabolic dish thermoelectric generator	Energy Sources Part A: Recovery, Utilization, and Environmental Effects	vol.36, no.14	1531-1539	2014	0.358
S. Shanmugam, AR. Veerappan, and M. Eswaramoorthy	An experimental evaluation of energy and exergy efficiency of a solar parabolic dish thermoelectric power generator	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	vol.36, no.17	1865-1870	2014	0.358
S. Shanmugam, P. Kumar, and AR. Veerappan	Thermal performance of a solar dryer with oscillating bed for drying of non-parboiled paddy grains	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	vol.36, no.17	1877-1885	2014	0.358
S. Narayan, A.	Workability behaviour of Fe-C-Mo steel preform	Jl. of Iron and Steel	vol.20,	126-130	2013	0.357

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Rajesh Kannan, K. S. Pandey, S. Shanmugam	during cold forging	Research International	issue 9			
M. Eswaramoorthy, and S. Shanmugam	Solar parabolic dish thermoelectric generator: a technical study	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	vol.35, no.5	487-494	2013	0.358
S. Shanmugam , and P. Kumar	Performance of an oscillating bed solar dryer for sunflower seeds	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	vol. 35, Issue 3	282-289	2013	0.358
S. Shanmugam , P. Kumar, and AR. Veerappan	Modeling and experimental studies on oscillating inclined-bed solar dryer	Jl. of Solar energy Engineering, Transactions of the ASME,	vol.135	1-6	2013	1.132
T. Christo Michael, AR. Veerappan, S. Shanmugam	Effect of internal pressure and shape imperfections on plastic loads of pipe bends under in-plane closing moment	Engineering Fracture Mechanics	vol.105	1-15	2013	1.662
A. Buckshumiyan, AR. Veerappan, S. Shanmugam	Plastic collapse loads in shape-imperfect pipe bends under in-plane opening bending moment	Intl. Jl. of Pressure Vessels and Piping	vol. 111-112	12-26	2013	1.078
Rajeshkannan, A., Pandey K.S., and Shanmugam, S.	Some studies on sintered cold deformed plain carbon alloy steels	Materials & Design;	vol. 33	115-120	2012	1.107

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
and Narayan, S						
T. Christo Michael, AR. Veerappan, S. Shanmugam	Effect of ovality and variable wall thickness on collapse loads in pipe bends subjected to in-plane bending closing moment	Engineering Fracture Mechanics	vol.79	138-148	2012	1.413
T. Christo Michael, AR. Veerappan, S. Shanmugam	Comparison of plastic limit and collapse loads in pipe bends with shape imperfections under in-plane bending and an internal pressure	Int. Jl. of Pressure Vessels and Piping	99-100	23-33	2012	0.932
M. Eswaramoorthy, and S. Shanmugam	Numerical model to compute the heat loss in focal receiver of solar parabolic dish thermoelectric generator	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	vol.34, no.10	959-965	2012	0.516
Eswaramoorthy, M., and Shanmugam, S	The thermal performance of a low cost solar parabolic dish collector for process heat	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	, vol.34, no.18	1731-1736	2012	0.516
S. Shanmugam and P. Kumar	Performance of an oscillating bed solar dryer for sunflower seeds	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	vol.35, no.3	282-289	2012	0.516
Ramalingam Gurumani, and Subramaniam Shanmugam	Modeling and contact analysis of crowned spur gear teeth, <i>Engineering Mechanics-Int</i>	Jl. for Theoretical and Applied Mechanics	vol.18, no.1, pp.	65-78	2011	0.707
S. Sakthivel, S.	Determination of Heating Surface Area in Small	Int. Jl. of Applied	Vol. 6,	401-408	2011	

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Shanmugam, AR.Veerappan	Capacity Wood-Fired Boilers	Engineering Research	No. 3,			
T. Christo Michael, AR. Veerappan, S. Shanmugam	A Study on the Effect of Cross Section Approximation on the Behaviour of Pipe Bends with Ovality and Thinning	Int. Jl. of Advanced Engineering Sciences and Technologies	vol. 2, no. 2	133-139	2011	
S. Shanmugam, AR. Veerappan, S. Sakthivel	Determination of Furnace Temperature and Aspect Ratio of Dry Back Boilers using Computational Fluid Dynamics	Int. Jl. of Applied Engineering Research	Vol. 6, No. 7	935-945	2011	
T. Christo Michael, AR. Veerappan, S. Shanmugam	Comparison Between Elliptic and Semi Elliptic Cross Sections in Pipe Bend with Shape Imperfections,	Int. Jl. of Applied Engineering Research	Vol. 6, No. 7	881-889	2011	
AR. Veerappan, and S. Shanmugam	Correlation between pipe bend geometry and allowable pressure in pipe bends using artificial neural network	Int. Jl. of Engineering, Science and Technology	Vol. 3, No. 4	284-296	2011	
Christo Michael, T., AR. Veerappan, and S. Shanmugam	Effect of cross section on collapse load in pipe bends subjected to in-plane closing moment	Int. Jl. of Engineering, Science and Technology	vol.3, no.6	247-256	2011	
S. Shanmugam, M. Eswaremoorthy, and AR. Veerappan	Mathematical modeling of thermoelectric power generator driven by solar parabolic dish collector	Int. Jl. of Applied Solar Energy	vol. 147	31-35	2011	0.39
P. Kumar, S. Shanmugam; and AR. Veerappan	An Experimental Study on drying of non-parboiled paddy grains using an oscillating bed solar dryer	Energy Engineering,	vol. 108 (2)	69-80	2011	4.292

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
S. Shanmugam, P. Kumar, and AR. Veerappan	Evaluation of thermal efficiency of oscillating-bed solar agricultural dryer	Jl. of Renewable and Sustainable Energy	vol.3	043116-1-043116-8	2011	1.214
Eswaramoorthy, M., Shanmugam, S., and AR. Veerappan	Feasibility Analysis of Solar Parabolic Dish Thermoelectric Power Generator	Int. Jl. of Integrated Energy System	vol.2, no.1	63-67	2010	
Eswaramoorthy, M., Shanmugam, S., and AR. Veerappan	A review on application for thermoelectric power generation	Int. Jl. of Integrated Energy System	vol.2, no.1	69-75	2010	
S. Shanmugam, P. Kumar, and AR. Veerappan	Pick-Up Efficiency of Air in Oscillating-Bed Solar Dryer for Sunflower Seeds	Int. Jl. of Industrial Engineering and Technology	vol. 2, No. 3a	373–382	2010	
Eswaramoorthy, M., and Shanmugam, S	Thermodynamic analysis of solar parabolic dish thermoelectric generator	Int. Jl. of Renewable Energy Technology	vol 1, no. 3	348-360	2010	
AR.Veerappan, S. Shanmugam, S. Soundrapandian	The Accepting of pipe bends with ovality and thinning using finite element method	ASME Jl. of Pressure Vessel Technology	Vol. 132, No. 3	031204:1-9	2010	1.513
Eswaramoorthy, M., and Shanmugam, S.	A techno-economic analysis of a solar thermoelectric power generator for a rural residential house energy demand	Int. Jl. of Applied Engineering Research	vol.4, no.10	1911-1919	2009	
Gurumani. R., and Shanmugam. S	Modeling and contact analysis of crowned external involute spur gears	Intl. Jl. of Theoretical and Applied Mechanics	vol.4, no.4	181-196	2009	

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Shanmugam, S., Pandey, K. S., and Syed Ummer M.Thangal	Ring rupture strength and hardness of sintered hot— forged 1.5 Mo alloyed carbon steels	Jl. of Materials Processing Technology	vol 209, Issue 7	3426- 3430	2009	1.42
Syed Ummer M.Thangal, Pandey, K. S., Natarajan, C., and S. Shanmugam	Effect of copper and silicon addition on the ring fracture strength and hardness of sintered-hot forged carbon steels	Int. Jl. of Materials and Product Technology	vol 34, no.3	312-322	2009	
AR Veerappan and Shanmugam, S	Transient thermo-mechanical analysis for life estimation of steam distribution pipes in thermal power plants	Jl. of Institution of Engineers	vol. 89	53 – 56	2009	
Rajeshkannan, A., Pandey K.S., Shanmugam, S., and Narayanasamy, R	Sintered eutectoid P/M steel behaviour during cold upsetting	Materials Research	vol.11, no.1	11-16	2008	1.743
Syed Ummer M.Thangal., Pandey, K.S., Natarajan, C., and Shanmugam, S	Ring fracture strength and hardness in sintered hot deformed high carbon steel preforms	Int. Jl. of Materials Science	vol.3, no.1	75-88	2008	
Rajeshkannan, A., Pandey K.S., and Shanmugam, S	Some investigation on the cold deformation behaviour of sintered iron – 0.8% Carbon alloy powder preforms	Jl. of Materials Processing Technology	vol.203	542-547	2008	1.143

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Rajeshkannan, A, Pandey K. S., Shanmugam, S. , and Narayanasamy, R	Deformation behaviour of sintered high carbon alloy powder metallurgy steel in powder preform forging	Jl. of Materials and Design	vol.29, no.9	1862-1867	2008	1.107
Rajeshkannan, A., Pandey K.S., Shanmugam, S. , and Narayanasamy, R	Sintered Fe-0.8%C-1.0%Si-0.4%Cu P/M steel peform behaviour during cold upsetting	Jl. of Iron and Steel Research International	vol.15, issue 5	81-87	2008	0.357
Rajeshkannan, A., Pandey K.S., Shanmugam, S. , and Narayanasamy, R	Evaluation of densification behaviour in Fe-0.8%C steel preforms during cold upsetting	Engineering Today	vol.2, issue 2	3-6	2008	
Veerappan AR., and Shanmugam, S	Analysis for flexibility in the ovality and thinning limits of pipe bends	Jl. of Engineering and Applied Sciences	vol.3, no.1	31-41	2008	
Gurumani, R and Shanmugam, S	Analysis on increase of contact ratio and its effects on involute spur gear teeth	Jl. of Manufacturing Technology today	vol.7, no.1	32-36	2008	
Hyacinth J Kennedy and Shanmugam S	Experimental study of roof integrated solar conservatory as an agricultural dryer	Hindustan Jl	vol.2	35-40	2008	
Hyacinth J Kennedy and Shanmugam S	Mathematical modeling of a solar system and prediction of ambient temperature using meteorological data	Hindustan Jl	vol.2	29-34	2008	

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
A. Rajeshkannan, K.S. Pandey, S. Shanmugam and R. Narayanasamy	Evaluation of densification behaviour in Fe-0.8% C steel preforms during cold upsetting	Engineering Today	vol.2, no.2	3-6	2008	
Syed Ummer M.Thangal., K.S. Pandey, C. Natarajan, and S. Shanmugam	Ring fracture strength and hardness behaviour on fractional density of sintered-hot forged 1.2% Cu and 1.0% Si alloyed carbon steels	Int. Jl. of Materials Science	vol.2, no.3	219-228	2007	
Shanmugam, S., and Christ Raj W	A novel design of absorber to eliminate sun–traction mechanism in the east–west direction in paraboloidal dish concentrators	Int. Jl. of Applied Engineering Research	vol.2, no.4	609-623	2007	
Veerappan, AR., and Shanmugam, S	Effect of shape imperfections and geometry on the performance of pipe bends	Int. Jl. of Applied Engineering Research	vol.2, no.4	625-635	2007	
AR. Veerappan, S. Shanmugam, G. Jayaraman, and S. Nagamanickam	Life estimation of boiler straight pipes under creep and fatigue loads	Jl. of Central Power Research Institute,	vol.3, no.2	187-193	2007	
Rajeshkannan, A., Pandey, K.S., Shanmugam S., Narayanasamy, R	Some studies on sintered Fe-0.8% C powder metallurgy steel during cold upsetting,	Int. Jl. of Materials Science	vol.2, no.2	177-189	2006	
Rajeshkannan, A., Pandey, K.S.,	Some studies on barreling of powder performs during cold upsetting	Jl. of the Mechanical Behaviour of	vol. 17, no. 6	415-430	2006	

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Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Shanmugam S		Materials				
Veerappan AR., and S Shanmugam	Stress analysis of pipe bends subjected to internal fluid pressure using the finite element technique	Jl. Strain Analysis	vol. 41 no. 8	561-573	2006	
S. Shanmugam and S. Sakthivel,	Efficient Utilisation of Wood as Boiler Fuel,	Energy and Fuel Users' JI	vol. LV	11-18	2006	
Shanmugam, S, and Veerappan, AR,	Static and Transient analysis of Power Generating Boiler Tube Bends Subjected to Internal Fluid Pressure	Jl. of Institution of Engineers (India)	vol. 87	38-42	2006	
Shanmugam, S., and Christ Raj. W	The tracking of the sun in solar paraboloidal dish concentrators	Transactions of the American Society for Mechanical Engineers, Jl. of Solar Energy Engineering	vol. 127, no. 1	156-160	2005	
Shanmugam, S and Sakthivel, S,	On the Modification of Spray Line in Pressure Reducing and Desuperheating Station at Thermal Power Stations	Jl. of Institution of Engineers (India)	vol. 86	145-148	2005	
Shanmugam, S, Govindarasu, V, Prabhu, G, Rex Sebastian, I and Palaniappan, R	Electronic Fuel Indicator for Powered Two Wheelers	Jl. of Institution of Engineers (India),	vol. 85	65-67	2002	
Shanmugam, S., and Krishnamurthy, R	Machinability study on pearlitic graphite cast iron	Int. Jl. of Production Research	vol. 30 no.1	189-197	1992	

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(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page nos.	Conference Theme	Venue	Year
Sumesh S, AR. Veerappan, and S Shanmugam	Shape deformation induced stress variation in through wall critical cracked pipe bends loaded by internal pressure	Proceedings of the World Congress on Engineering	1097-1101	Focus on frontier topics in theoretical, applied engg. and computer science subjects	London	2015
Sumesh. S, AR. Veerappan, and S. Shanmugam	A Study on effect of shape irregularities on collapse loads of pipe bends with critical circumferential through wall crack under in-plane closing bending	Int. Mechanical Engineering Congress	ISBN-13, 978-3-03835-163-4	Advancement of Mechanical Engineering to meet global challenges.	NIT Tiruchirappalli	2014
Buckshumiyan A, AR. Veerappan, and S. Shanmugam	Effect of shape imperfections on thin-walled pipe bends under out-of-plane moment and internal pressure	Int. Mechanical Engineering Congress	ISBN-13, 978-3-03835-163-4	Advancement of Mechanical Engineering to meet global challenges	NIT Tiruchirappalli	2014
G. Muthu, S. Shanmugam , and AR. Veerappan	Energy and exergy analysis of solar parabolic dish thermoelectric generator	Int. Mechanical Engineering Congress	ISBN-13, 978-3-03835-163-4	Advancement of Mechanical Engineering to meet global challenges	NIT Tiruchirappalli	2014
G. Muthu, S. Shanmugam , and AR. Veerappan	Numerical energy analysis of solar parabolic dish thermoelectric generator	Nat. Conf. on Advances in Mechanical Engineering		Provide common platform for practicing engineers	John Institute of Technology, Bangalore	2014

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Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page nos.	Conference Theme	Venue	Year
G. Muthu, S. Shanmugam, and AR. Veerappan,	Mathematical modeling of thermoelectric generator with solar parabolic dish	3rd Int. Conf. & Exhibition on Sustainable Energy & Advanced Material. (ICE-SEAM 2013),		Energy Efficient and Advanced Material for Sustainable Development	Melaka Malaysia	2013
G. Muthu, S. Shanmugam, and AR. Veerappan	Solar parabolic dish thermoelectric generator with acrylic cover	4th Int. Conf. on Advances in Energy Research	10-12		IIT Bombay, Maharashtra	2013
Buckshumiyam A, AR. Veerappan, and S. Shanmugam	Finite element limit analysis in pipe bends subjected to in-plane opening bending moment and internal pressure	Proc. of Int. Conf. on Computer Aided Engineering	133-136	to bring together the global community to a unique high level forum	IIT Madras	2013
Eswaramoorthy M and Shanmugam, S	Thermoelectric power generation: a review	Int. conf. on Advances in Energy Conversion Technologies	55-58	Advancement in renewable energy technology	MIT Manipal	2010
Eswaramoorthy M, Shanmugam, S, and Veerappan AR	An analytical equation to estimate heat loss for solar parabolic dish thermoelectric generator	Proc. of Int. conf. on Frontiers in Mechanical Engineering	CD	to discuss developments in the field of Mechanical Engineering to review the challenges being faced by the engineers	NIT Karnataka, Surathkal	2010
S. Sakthivel, and S. Shanmugam	Efficient utilization of small capacity boilers	Proc. of Int. Conf. on Boilers	CD	To discuss issues in thermal power plants	Chennai Trade Centre	2010
R. Chandramouli,	Effect of imposed constraints on	Int. Conf. and Exhibition	CD		Chennai	2010

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Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page nos.	Conference Theme	Venue	Year
S. Shanmugam, and K. S. Pandey	the densification behaviour of iron, Fe-0.35%C and Fe-0.65%C sintered P/M steel preforms during cold deformation	on Powder Metallurgy in Processing				
G. Jyothi Rao, K. S. Pandey, S. Shanmugam, and S. K. Pandey	Influence of lubricant, composition and initial preform height to diameter ratio on cold deformation behaviour of sintered systems aluminium and aluminium – 2% alumina	Int. Conf. and Exhibition on Powder Metallurgy in Processing of Particulate Materials and Products	CD		Jaipur	2010
Sathish M. Kanhed, S. Shanmugam, and K. S. Pandey	Behaviour of sintered low alloy porous P/M steel preforms of different initial aspect ratios during hot upset forging	Int. Conf. and Exhibition on Powder Metallurgy in Processing of Particulate Materials and Products	CD		Jaipur	2010
Christo Michael T, AR. Veerappan, and S. Shanmugam	Effect of bend angle on induced stresses in pipe bends – numerical investigation	Int. Conf. on Frontiers in Mechanical Engineering	DA-152,58		NIT,Karnataka 1	2010
Eswaramoorthy M, and Shanmugam, S	A feasibility study on solar thermoelectric hybrid power generation	Proc. of Int. conf. on Energy and Environment,	431-435		Chandigarh	2009
Rajeshkannan, A., Pandey, K.S., and Shanmugam S	Evaluation of deformation and densification behaviour in sintered Fe-0.8%C-1.0%Mo steel preforms	Int. Conf. on Emerging Research and Advances in Mechanical Engineering	CD		Chennai	2009
Eswaramoorthy M, and Shanmugam, S	Energy and exergy analysis of solar thermoelectric hybrid power generation	Global conf. on Global warming	Paper no.256		Istanbul, Turkey	2009
S.Shanmugam, K.S. Pandey, and	Fracture strength of rings made from sintered hot-forged Fe-	12 th Int. Conf. on Fracture (ICF12),				2009

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Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page nos.	Conference Theme	Venue	Year
Syed Ummer M.Thangal	0.8%C-1.0%Si-0.8%Cu P/M steels					
A. Rajeshkannan, K.S. Pandey, and S. Shanmugam	Deformation behaviour of sintered Copper based powder metallurgy alloy in powder preform forging	IC-ICAME	CD		IISc Bangalore	2008
S. Sakthivel, and S.Shanmugam	Stress on unification of various pressure vessel codes in practice	Proc. Int. Conf. and Exhibition on Pressure Vessels and Piping	CD		Chennai	2006
R. Prathap Raj, AR. Veerappan, and S. Shanmugam	Transient thermo mechanical analysis of boiler pipes	Proc. of Int. Conf. on Global Manufacturing and Innovation,	CD		CIT Coimbatore	2006
R. Gurumani, S. Shanmugam	Optimal engineering design of Spur gear sets against fatigue using genetic algorithms,	Proc. of the Int. Conf. on Global Manufacturing and Innovation	CD		Chennai	2006
A. Rajeshkannan, K.S. Pandey, and S. Shanmugam	Influence of frictional constraints between the combined stresses and the continued deformation and Densification of sintered high carbon P/M steel during cold deformation	Proc. of Green Engineering Materials processing, Int. Conf. in Materials Science and Technology	CD		Ohio, Cincinnati, USA	2006
A. Rajeshkannan, K.S. Pandey, and S. Shanmugam	Densification behaviour of cold forged Fe-C-Si-Cu sintered powder metallurgy steel	Int. Conf. on Advances in Mechanical Engineering	CD		SRM Institute of Science and Technology, Chennai	2006
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