

# Department of Mechanical Engineering

KITS Warangal

Faculty group mail-id : me@kitsw.ac.in

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#### Faculty

Name of the Faculty	Designation/ Affiliation	Address	Email Id	
Dr. KANDURI SRIDHAR	Professor & Head of Mechanical Engineering & Dean, Students Affairs	Office: Room No. 220, Block-III, Dept. of Mechanical Engineering Ph: 0870-2564888 (ext:257)  Mobile: 9493004837, 8919616040	kandurisridhar@ rediffmail.com, drsridhar.kits@g mail.com	

EDUCATI	EDUCATION				
Degree	Details (specialization)	Institute / University	Month , Year of Registered	Month , Year completed	
B.Tech.	Mechanical Engineering spl. In Production Engineering, Distinction 71%	MJCET, Osmania University, Hyderabad, T.S.	July, 1992	June, 1996	
M.Tech.	Heat power , Refrigeration & Air Conditioning, Distinction 85%	JNTU College of Engineering, Ananthapuram, A.P.	July, 1996	March, 1998	
Ph.D.	Energy Systems-Thermo Economic optimization of a Gas Turbine Cogeneration Power Plant	JNTU College of Engineering, Hyderabad, T.S.	March, 1999	March,2004	

ACADEMIC AFFILIATION CURRENT: PROFESSOR					
Details	From (Month, Year)	<b>To</b> (Month, Year)	Name of the Organization		
Professor of Mechanical Engg.	09-01-2009	Till Date	Kakatiya Institute of Technology & Science, Warangal, T.S.		
Assistant Professor of Mechanical Engg. (Assoc. Pofessor)	02-05-2005	08-01-2009	Kakatiya Institute of Technology & Science, Warangal, T.S.		

Lecturer in Mechanical Engg.	13-12-1999	01-05-2005 Kakatiya Institute of Technological Science, Warangal, T.S.	
Lecturer in Mechanical Engg.	08-01-1998	11-12-1999	G.Pulla Reddy Engineering College, Kurnool, A.P.

### RESEARCH INTERESTS

Exergy analysis, Solar Collectors, Solar Air heaters, Gas turbine Cogeneration, Steam turbine power plants, Refrigeration & Air conditioning, Fluidized bed gasifier etc.,

PUBL	ICATIONS
Public	cations in Refereed Journals: 18
S.No.	Details
1.	<b>Simulation studies on conjugate mixed convection perforated fins,</b> <i>International Journal of scientific Research and Review, Volume 7, Issue 7, pp. 317–324, July 2019</i>
2.	Exhaust heat recovery from compression ignition engines for power generation, International Journal of scientific Research and Review, Volume 7, Issue 7, pp. 325–331, July 2019
3.	Heat transfer analysis of solar air heating system for different tilt angles, Applied Solar Energy, 2018, Vol. 54, No. 1, pp. 17–22. © Allerton Press, Inc., 2018. ISSN No.0003-701X, Springer Journal
4.	<b>Performance of cylindrical parabolic collector with automated tracking system,</b> <i>Applied Solar Energy, 2018, Vol. 54, No. 2, pp. 134-138.</i> © <i>Allerton Press, Inc., 2018. ISSN No.0003-701X, Springer Journal</i>
5.	A Literature survey on Thermodynamic Analysis of a Flat Plate Solar Air heater having different obstacles on absorber plate, International Journal of Engineering Technology science and Research (IJETSR), Vol.4, Issue 8, August 2017, ISSN No. 2394-3386
6.	Heat Removal Factor of an Integrated solar flat plate collector with packed bed system, International Journal of Engineering Technology, Management and Applied Sciences (IJETMAS), July, 2017, Volume 5, Issue 7, pg.No. 720-727, ISSN NO: 2349-4476
7.	Thermal analysis of a solar flat plate collector, International Journal of Engineering Technology, Management and Applied Sciences (IJETMAS), April, 2017, Volume 5, Issue 4, pg.No. 472-475, ISSN NO: 2349-4476
8.	Experimental studies on performance characteristics of thermo-electric generator used in compression ignition engines, International Journal of Engineering Sciences & Research Technology, June, 2015, pg.No. 245-250, ISSN NO: 2277-9655
9.	Experimental Studies on Conjugate mixed Convection Heat Transfer Through Perforated Fins, International Journal of Science, Engineering and Technology Research, June, 2015, pg.No. 1803-1808, E-ISSN: 2278 – 7798
10.	Performance analysis of integrated packed bed solar flat plate collector, International Journal of Engineering Sciences & Research Technology, May, 2015, pg.No. 295-300, ISSN NO: 2277-9655
11.	Experimental Study on solar flat plate collector with and Without coating, International Journal of Engineering Sciences & Research Technology, May, 2015, pg.No. 412-418, ISSN NO: 2277-9655

12.	<b>Exergy analysis of a 500 MW thermal power plant,</b> International Journal of Earth sciences and Engineering, January 2012, Pg.No 552-558, ISSN NO. 0974-5904
13.	The role of exergy analysis in the development of clean and secure energy for the twenty first century, International Journal of Computational Intelligence research and
	Applications, January-June 2008, vol.2, No.1, Pg.No 17-21, Serials publications, New Delhi, ISSN NO. 0973-6794.
14.	Exergy analysis importance in the power plants, International Journal of Applied Mathematical Analysis and Applications, January-June 2008, vol.3, No.1, Pg.No.113-117, Serials publications, New Delhi, ISSN NO. 0973-3868
15.	<b>Thermo economic optimization of gas turbine cogeneration plant,</b> International Journal of Applied Mathematical Analysis and Applications, January-June 2008, vol.3, No.1, Pg.No.119-129 Serials publications, New Delhi, ISSN NO. 0973-3868.
16.	Exergo economic evaluation and optimization of energy systems-application to the gas turbine cogeneration plant, 117International Journal of Scientific Computing, January-June 2008, Vol.2, No.1, Pg No.33-41, Serials publications, New Delhi, ISSN NO. 0973-578X.
17.	Optimization of gas turbine cogeneration plant by thermo economic evaluation, International journal of chemical industry digest, May 2004, Pg NO. 47-57, Block Dale Publications, Mumbai, ISSN NO. 0971-5266
18.	Potential of cogeneration in industries, Journal of Engineering Today, August2003.
Public	rations in Refereed Conference Proceedings: 30
1.	<b>Simulation studies on conjugate mixed convection perforated fins,</b> XVII International conference on recent trends in engineering, science and management (ICRTESM-19), Pune, pp. 79–86, July 28, 2019
2.	Exhaust heat recovery from compression ignition engines for power generation, XVII International conference on recent trends in engineering, science and management (ICRTESM-19), Pune, pp. 250–256, July 28, 2019
3.	Computational Investigation Of Inert Particle Size Effect On Hydrodynamic Behaviour Of Fluidized Bed, 2 <sup>nd</sup> International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2019), NIT, Warangal ,15-16 February, 2019, ISBN: 978-81-928314-5-9, Pg No. 28
4.	A Review On Comparative Study Of Solar Air Heater Performance With Different Shapes On Absorber Plate Surface, 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2019), NIT, Warangal ,15-16 February, 2019, ISBN: 978-81-928314-5-9, Pg No. 34
5.	Thermodynamic Analysis Of Frame 9 E Gas Turbine Model, 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2019), NIT, Warangal ,15-16 February, 2019, ISBN: 978-81-928314-5-9, Pg No. 35
6.	Parametric Studies On Combined Conduction And Convection Heat Transfer In Perforated Fins, 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2019), NIT, Warangal ,15-16 February, 2019, ISBN: 978-81-928314-5-9, Pg No. 41
7.	Performance Optimization Of Solar Air Heater By Structural Modifications Of Absorber Plate, 2nd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2019), NIT, Warangal ,15-16 February, 2019, ISBN: 978-81-928314-5-9, Pg No. 80
8.	A Literature survey on Thermodynamic Analysis of a Flat Plate Solar Air heater having different obstacles on absorber plate, 3 <sup>rd</sup> International conference on Advancement in Engineering, Applied Science and Management (ICAESM-2017), Center

	for Development of advanced computing, Mumbai,20 August 2017, ISBN No. 978-81-934288-1-8.
9.	Heat Removal Factor of an Integrated solar flat plate collector with packed bed system, 5 <sup>th</sup> International conference on Research trends in Engineering, Applied Science and Management (ICRTESM-2017), IETE, Pune, 23-07-2017, Pg No. 655-662, ISBN NO. 978-81-934083-8-4.
10.	Thermal analysis of a solar flat plate collector, 2 <sup>nd</sup> International conference on Research trends in Engineering, Applied sciences and Management( ICRTESM-2017), NITTR, Chandigarh, MHRD, Govt. of India, 23-04-2017, ISSN No. 2349-4476
11.	Energy and Exergy analysis of a solar flat plate collector, International conference on advanced materials, management &thermal sciences, SIT, Tumkur, Karnataka, May 03-04, 2013, , ISBN NO. 13 978-81-926304-0-3
12.	Effect of Tilt angle of a solar air heating system, International conference on advanced materials, management &thermal sciences, SIT, Tumkur, Karnataka, May 03-04, 2013, , ISBN NO. 13 978-81-926304-0-3
13.	Comparative Energy and Exergy analysis of a Thermal Power plant, International conference on challenges and opportunities in Mechanical engineering, MS Ramaiah institute of Technology, Bangalore, July 11-13,2012, Pg No. 618-626, ISBN NO. 978-93-82338-04-8, Bonfring Publishers.
14.	<b>Performance evaluation of solar cooker using energy and exergy analysis,</b> International conference on current trends in engineering and management, Vidyavardhaka College of engineering, Mysore, July 12-14,2012, Pg No171-176.
15.	Solar flat plate collector Performance as a function of mass flow rate& intensity of solar radiation, International conference on current trends in engineering and management, Vidyavardhaka College of engineering, Mysore, July 12-14, 2012.
16.	Using Energy and Exergy analysis to understand performance of coal based Thermal power plants, National conference on Advances in Mechanical Engg, KITS, Huzurabad, February, 2012
17.	Exergy analysis of a 500 MW thermal power plant, International conference on Recent Advances and challenges in Energy, Mani pal Institute of Technology, Mani pal, January4-6, 2012, Pg.No. 552-558
18.	<b>Performance analysis of diesel engine with waste vegetable oil-diesel blends,</b> National Conference on Advances in Mechanical Engineering, Vasavi College of Engineering, Hyderabad, 2010.
19.	An overview of importance of exergy analysis in the power plants, International Conference on Thermal Engineering theory and applications, Lebanon, May 31- June 4, 2004, Ryerson University.
20.	Clean and secure energy for the twenty first centuries-the role of exergy analysis in their development, International Conference on Thermal Engineering Theory and applications, Lebanon, May 31- June 4, 2004, Ryerson University.
21.	Cogeneration potential in the various industries of India- UNESCO Sponsored conference on Sustainable development of Energy, Water and Environment systems, 2-7 June 2002, Dubrovnik.
22.	Cogeneration policy and regulation, National Seminar on Non-conventional Energy Sources in Community Development, Annamalai University, Tamilnadu, Feb 16-17, 2001 Pg NO. 106-110.
23.	Thermodynamic performance and analysis of cogeneration systems, All India Seminar on Recent Trends in Mechanical Engineering, IIT Roorkee, Sept 29-30, 2000, Pg NO. 657-663
24.	<b>Exergy analysis of cogeneration systems,</b> All India Seminar on Recent Trends in Energy Conservation CPRI, Tiruvanantapuram, Oct 7-8,1999, Pg NO. 238-246.

25.	<b>Cryogenics and its applications in diversified fields,</b> All India Cryogenic Council Conference, Bangalore 1998 Pg NO 1-2		
26.	<b>Future refrigerants problems and prospects,</b> All India seminar on Refrigeration & Airconditioning, Institution of Engineers (India), Aurangabad,1998, Pg NO 81-85.		
	Experimental investigation of heat removal factor of an integrated solar flat plate		
27.	collector with packed bed system, International conference on trends and advanced		
	research in green energy technologies, VIT, Vellore, march 30-31,2017, pg. no. 36		
	Evaluation of overall heat transfer coefficient for an integrated solar flat plate		
28.	collector-packed bed system, , International conference on trends and advanced research		
	in green energy technologies, VIT, Vellore, march 30-31,2017, pg. no. 37		
	Heat transfer analysis of solar air heating system for different tilt angles, International		
29.	conference on trends and advanced research in green energy technologies, VIT, Vellore,		
	march 30-31,2017, pg. no. 38		
	Performance of cylindrical parabolic collector with automated tracking system,		
30.	International conference on trends and advanced research in green energy technologies,		
30.	VIT, Vellore, march 30-31,2017, pg. no. 52.		

SEMIN	SEMINARS /WORKSHOPS ATTENDED		
S.No.	Details		
1	Participated in one week FDP on RESEARCH METHODOLOGY&COMPUTATIONAL TECHNIQUES (RMCT-16), KITS, Warangal from 27 June to 01 July 2016.		
2	Participated in 2 days workshop on "Effective functioning of an autonomous institution" by Educational Technology Center (ETC) at KITSW from 17-18, January, 2015		
3	Participated in a 1 day seminar on "Teachers Role in an autonomous institution" by Educational Technology Center (ETC) at KITSW on 29, November, 2014		
4	Participated in 1 day Seminar on "Responsibility of youth in implementing Technology for better society" by ISTE KITSW chapter at KITSW on 13 December, 2015		
5	Participated in 2 weeks AICTE/ISTE winter school on TECHNOLOGY EVALUATION AND UPGRADATION IN THE FUNCTIONAL AREAS OF CERAMIC MANUFACTURING SYSTEMS at KITSW from December 11-23, 2000		
6	Participated in 2 weeks AICTE/ISTE Summer school on RECENT TRENDS IN ENERGY CONSERVATION THROUGH EXERGETIC SYSTEM OPTIMIZATION at VIT, Vellore from June 19-30, 2000		
7	Participated in one week FDP on ENGINEERING DRAWING at KITS, Warangal from 27 February to 05 March 2018.		
8	Participated in one week STTP on HANDS ON PROGRAM ON ANSYS SOFTWARE at KITS, Warangal from 12 November to16 November 2018.		

PROFES	PROFESSIONAL AFFILIATION		
S.No.	Details		
1.	Life Member in ISTE (LM 27041)		
2.	Life Member in SESI (LM 2911)		

RESEA	RESEARCH GUIDANCE (Ph.D Level)					
S.No.	Name of the scholar	Title of Thesis/ Area of Research	University	Status	Co- supervisor, if any	
1.	Dr. G. Ganesh Kumar	Conjugate mixed convection with surface radiation from discretely and non identically heated vertical plate with adiabatic and non adiabatic non heat source portions	NIT, Warangal	Awarded in March 15, 2013	Dr. C. Guru Raja Rao, Professor, NITW, Co supervisor	
2.	Sri G. Vinod Kumar	Thermodynamic analysis of solar collectors using different working fluids	Kakatiya University, Warangal	Registered in January, 2012 Completed Pre- Ph.D.		
3.	Sri G. Buchi Babu	Exergy analysis of a thermal power plant	Kakatiya University, Warangal	Registered in January, 2012 Completed Pre- Ph.D.		
4.	Smt.D. Nalini	Thermodynamic analysis of a flat-plate solar air heater having different obstacles on absorber plates	Kakatiya University, Warangal	Registered in August, 2015 Completed Pre- Ph.D.		
5.	Sri G. Lingaiah	Performance analysis of the parabolic trough receiver with different configurations using various working fluids	Kakatiya University, Warangal	Registered in August,2015 Completed Pre- Ph.D.		
6.	Mr. K. Rajani Kanth	Investigation of flow behaviour of multi phase fluid particles in fluidized bed gasifiers using CFD Analysis	Kakatiya University, Warangal	Registered in February,201 8		
7.	Smt. P. Rukmini	Comparative study of solar air heater performance with different shapes on absorber plate surface	Kakatiya University, Warangal	Registered in August,2018		

AWARDS	
S.No.	Details
1.	Received commendation certificates from district collectors of Kurnool and Warangal, govt. of A.P. & DGM, S.C. Railway & Principal, KITS, warangal.

### **COURSES TAUGHT**

## **Undergraduate Level**

<b>Courses Taught</b>		Currently Teaching	
Course	Semester, Year, Branch	Course	Semester, Year, Branch
Refrigeration& Air conditioning	4 year I Semester Mechanical Engineering	Refrigeration& Air conditioning	4 year I Semester Mechanical Engineering
Energy Engineering& Management	4 year II Semester Mechanical Engineering	Basic Mechanical Engineering	I year I semester CSE
Heat Transfer	3 year II Semester Mechanical Engineering	Refrigeration& Air conditioning& Fuels laboratory	4 year I Semester Mechanical Engineering
I.C Engines	3 year I Semester Mechanical Engineering	Power Plant Engineering	4 year II Semester Mechanical Engineering
Applied Thermodynamics	3 year I Semester Mechanical Engineering	Basic Mechanical Engineering	I year II semester CE
Cryogenics	4 year II Semester Mechanical Engineering		
Engineering Thermodynamics	2 year II Semester Mechanical Engineering		
Engineering Drawing	1 year Mechanical Engineering& IT &EIE &CSE &CE&ECE&EEE		
Thermodynamics	2 year II Semester Mechanical Engineering		
Refrigeration& Air conditioning& Fuels laboratory	4 year I Semester Mechanical Engineering		
Heat Transfer Laboratory	3 year II Semester Mechanical Engineering		
I.C. Engines laboratory	3 year I Semester Mechanical Engineering		

FACULTY DEVELOPMENT PROGRAMS ORGANIZED		
S.No.	Details	
1.	Organized one week FDP on "Engineering Drawing" at KITS, Warangal	

2.	Organized one week STTP on "Hands On Program On Ansys Software" at KITS, Warangal from 12 <sup>TH</sup> to 16 <sup>TH</sup> November 2018.
3.	Organized one week Refresher Course on TRAINING IN MECHANICAL ENGINEERING LABORATORIES for Technical Staff at KITS, Warangal from 18 February to 23 February 2019.
4.	Organized one day workshop on "Refrigeration & Air Conditioning" on 15 March 2019.

BOOKS PUBLISHED			
S.No.	Details		
1.	Thermo economic optimization of a gas turbine cogeneration power plant- Lambert Academic Publishing, Europe, ISBN NO: 978-613-9-57956-3		

#### ADMINISTRATIVE EXPERIENCE

- 1. Dean, Student Affairs
- 2. Head of the Department
- 3. Chief Warden
- 4. I/C Exams
- 5. Chairman, Cultural Activities Committee
- 6. Member, Board of Studies in Mechanical Engg, Kakatiya University& KITS Warangal, T.S.
- 7. Chairman, Board of Studies in Mechanical Engg., KITS Warangal, T.S.
- 8. Convener, Departmental Research Committee
- 9. Co coordinator, Thermal Engg. Labs
- 10. I/C Higher Education Cell
- 11. I/C Tours & Short Visits
- 12. Convener, Anti- Ragging Committee
- 13. Professor In-charge, Research & Development