Name: Dr. Ramola Sinha		E-mail:ram	olasinha@somaiya.edu
Contact No: 98204	139866	<u> </u>	
Department/Section	n: Mechanical Department		
College: K J Soma	iya College of Engineering		
DOJ Somaiya:	Career Experience:27 Yrs	Industry Experience: 00Yr	s Teaching
01/07/1999			Experience:27Yrs
Present Academic Designation: Associate Professor			

### Area of research/specialization and Courses Delivered

### Research domain/interests/areas

- 1. Heat Transfer
- 2. Computational Fluid Dynamic (CFD)
- 3. Refrigeration & Air Conditioning
- 4. Energy Efficiency (Thermal Power Plant)
- 5. Solar Energy
- 6. Numerical method

#### Courses Delivered

#### UG

- 1. Refrigeration & Air-conditioning,
- 2. Heat Transfer,
- 3. Computational Fluid dyanmics,
- 4. Thermal Engineering,
- 5. Thermodynamics,
- 6. Power Plant Engineering,
- 7. Energy Conversion-I,
- 8. Energy Conversion-II and
- 9. Engineering Mechanics etc.

### PG

- 10. Solar Energy,
- 11. Advance Solar Energy,
- 12. Energy Conservation in building,
- 13. Fluid Mechanics and Computational Fluid Dynamics etc.

#### Ph.D

Fluid Mechanics and Computational Fluid Dynamics.

Recognition as a teacher by any University	UG: Yes/No	PG: Yes/No	Ph.D: Yes/No
Details of Recognitions			
1. Mumbai University	Yes		
2. Somaiya University	Yes		
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		Education		•	
Examination	Name of the	University/Board	Institute/College	Year	CPI/SPI/
	Degree				%Marks
Ph.D	Ph.D	Mumbai University	VJTI, Mumbai	2021	-
	(Mechanical)				
PG	M.E	Mumbai University	SPCE, Mumbai	2007	72%
	(Mechanical)				
UG	B.E (Mechanical)	Patna University	BCE, Patna (presently	1991	68.5%
			NIT, Patna		

	Notable Experience Details				
Sr. No	Name of the	Designation	Date of Joining	Date of Leaving	Experience
	organization				(Years)
1.	BARC, Trombay	Research Scholar	August 2006	July 2007	01
2.					

Research Accomplishments and Projects			
No of students pursuing Ph.D as on date:NIL  No of students completed Ph.D as on date:NIL			
No of students completed PG thesis / Project work as on No of students / groups completed UG pro		No of students / groups completed UG projects	
date: 05		as on date: 50	
Publications	Number of Peer review Journal	Number of Conference papers: 12	
Total:16 papers: 04			

#### **Details of Publications:**

#### **International Journals**

- 1. Ramola Sinha and Nitin P. Gulhane, Experimental investigation and heat loss analysis of a three-coil solar cavity receiver of parabolic dish collector under wind condition, Int. J. Renewable Energy Technology, Vol. 12, No. 1, 2021.
- 2. Ramola Sinha, N.P.Gulhane,. Numerical study of Radiation Heat Loss from Solar Cavity Receiver of Parabolic Dish Collector, Numerical Heat Transfer, Part A: Applications, Taylor and Francis DOI No: 10.1080/10407782.2020/2020.1714366.
- 3. Ramola Sinha, Nitin P. Gulhane, Jan Taler, and Pawel Oclon, 2019. 'Heat Loss Analysis of Three Coil Cylindrical Solar Cavity' Thermal Science: Year 2019, Vol. 23, Suppl. 4, pp. S1-S10. January 2019. Society of Thermal Engineers of Serbia. Paper revised: April 18, 2019 Published by the Vinča Institute of Nuclear Sciences, Belgrade, Serbia. DOI: 10.2298/TSCI19S4301S.
- 4. R. Sinha, A.K. Nayak and B.R. Sehgal., "Modeling The Natural Convection Heat Trasfer and Dryout Heat Flux in Porous Debris Bed," ASME Journal of Heat Transfer, Vol.130, No.10, Oct. 2008.

#### Conferences

- 1. Ramola Sinha, Kavita Kumari Thakur, 2023. Heat Recovery from condensing heat exchanger, Material Today Proceedings, volume 72, Part 3, 2023, Pages 1965-1969.
- 2. Ramola Sinha, N.P.Gulhane,2017. Mathematical Modeling of Heat Losses from Cylindrical Cavity Receiver in Solar Parabolic Dish, 2017. ICAER, IIT Bombay. Springer Proceeding in Energy: ISSN: 2352-2534. <a href="http://www.ese.iitb.ac.in/icaer2017/docs/Proc">http://www.ese.iitb.ac.in/icaer2017/docs/Proc</a> Results/PROC\_ICAER\_17\_All\_OK.pdf
- 3. R. Sinha and N. P. Gulhane, 2018. "Heat loss from cylindrical cavity receiver in solar parabolic dish system: a review," Proceedings of the 24th National and 2nd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-2017), Hyderabad, Mumbai. http://ishmtdigitallibrary.com/conferences/497665e8310dfd2d,6e9515933d4aa1cf,1fc7ceda2a23393c.ht ml DOI: 10.1615/IHMTC-2017.2000.
- 4. Ramola Sinha, N.P.Gulhane. Effect of Boundary Condition on Heat Losses from Solar Cavity Receiver, 2017. International Conference on Advances in Thermal System, Material and design, VJTI, Mumbai (ATSMDE2017), Dec. 21-22,2017. SSRN-id3101297. https://ssrn.com/author=2899629
- Ramola Sinha; Nitin P. Gulhane; Paweł Ocłoń; Jan Taler; Rahimi Gorji,2019. The wind test on Heat Loss from Three coil Cavity Receiver for a Parabolic Dish Collector. ICCHMT 2019, Rome, Italy, 3-6 September 2019. Published online: 08 November 2019.DOI: https://doi.org/10.1051/e3sconf/201912801006
- 6. Ramola Sinha, N.P.Gulhane, Mathematical Analysis of Convection Heat Loss from Solar Cavity Receiver Dish Concentrator, 2019. ICAER, IIT Bombay.

- 7. R. Sinha and A.K.Gangare "MODELING CONDENSING HEAT EXCHANGER FOR EFFICIENCY IMPROVEMENT OF THERMAL POWER PLANTS" International Conference on Recent Advances in Engineering, Technology and Management, SPCE Mumbai, 31st May-2nd June, 2012.
- 8. R. Sinha and S. N. Bansode, "A Thermodynamic Analysis for Gas Turbine Power Optimization by Fog Cooling System," International (ISHMT-ASME) Conference on Heat and Mass Transfer, IITB, Mumbai, Jan. 4-6, 2010.
- 9. R. Sinha and M. Gandhi, "Thermal Power Generation and Energy Savings for Industrial Boiler," International (ISHMT-ASME) Conference on Heat and Mass Transfer, IIT, Mumbai, Jan. 4-6, 2010.
- 10. R. Sinha and M. Gandhi, "Cooling Coil Design and Performance Evaluation," National (NCAME09) Conference on Advances in Mechanical Engineering, RGIT, Mumbai, Jan. 15- 16, 2009.
- 11. R. Sinha, A. K. Nayak and R. Easow, "Quenching Characteristics of a Molten Pool during Severe Accident Condition," International (ISHMT-ASME) Conference on Heat and Mass Transfer, JNTU, Hyderabad, Jan. 3-5, 2008.
- 12. R. Sinha and A. K. Nayak and B. R. Sahgal, "Quenching Behaviors of a Heat Generating Debris Bed-Development of a Model," International (ISHMT-ASME) Conference on Heat and Mass Transfer, JNTU, Hyderabad, Jan. 3-5, 2008.

### Books/Book Chapters

Book Title Advances in Energy Research, Vol 2

Chapter Title: Mathematical Modeling of Heat Losses from Cylindrical Cavity Receiver in Solar Parabolic Dish, Year 2020, Springer Nature Singapore Pte Ltd. http://www.springer.com/series/13370

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No of Research / consultancy /	No of Research / consultancy /	No of Research / consultancy /	
projects completed:	projects on-going:	projects on applied as on date:	
Rs:NIL	Rs:NIL	Rs:NIL	
Details of Research / consultancy	/ projects:		
Completed:			
On-going On-going			
1. Applied			
1.			
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1			

## FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered

### Attended

- 1. Attended International Conference on Technologies for Energy, Agriculture, and Healthcare (ICTEAH 2024) scheduled on 15-16 April 2024, Mumbai, India
- 2. Attended 9th International Conference on Advances in Energy Research (ICAER) at IIT Bombay, Department of Energy Science and Engineering, from 12<sup>th</sup> to 14<sup>th</sup> December 2023
- 3. Attended "International Conference & Exposition on Advances in Mechanical Engineering" (ICAME-2022) at COEP, Pune on 23<sup>rd</sup>-25<sup>th</sup> June 2022.
- 4. CFD Simulation using Ansys Basic Course by ANSYS software Pvt. Ltd, organized by K J Somaiya College of Engineering, Vidya Vihar- Mumbai, from 08th -12th July, 2020.
- 5. Faculty Development program on online teaching and E-Content, at Sk Somaiya College and IIID on 11th-12th June 2020.
- 6. International Conference on Advances in Energy Research (ICAER-2019), IIT Bombay, 3rd 5th December 2019.
- 7. International Conference on Advances in Energy Research (ICAER-2017), IIT Bombay, 12th 14thDecember 2017.

- 8. Heat and Mass Transfer Conference (IHMTC-ASTFE-2017), BITS Pilani, Hyderabad, India, 27th -30thDecember 2017.
- 9. International Conference on Advances in Thermal System, Material and design, VJTI, Mumbai,21st -22nd December 2017.
- 10. Attended one week AICTE-QIP STTP on, "Fluid Flow Behavior using Computational Methods" during 28th December 2015 to 1st January (one week) at
- 11. VJTI, Mumbai.
- 12. One day seminar on' Industrial Tribology', organized by KJSCE, Mumbai, Oct 2000.
- 13. Attended One day workshop Workshop on "VSSC ISRO'S SMT FEAST Technology" scheduled on Tuesday, 8th Nov., 2016. The event is organized by Department of Mechanical Engineering, VJTI, Matunga, Mumbai in association with Vikram Sarabhai space center ISRO in association with BARC Mumbai, IIT Bombay and Indian Railways. FEASTSMT is ISRO's structural analysis software based on Finite Element Method (FEM) realized by Structural Engineering Entity of Vikram Sarabhai Space Centre (VSSC).
- 14. Attended International Conference on' Heat and Mass Transfer', organized by IITB, Mumbai, Jan 2010.
- 15. Attended Two days orientation program on 'Computational Fluid Dynamics', organized by SPCE, Mumbai, Sept 2009.
- 16. Attended One week STTP on' Renewable Energy System and Technology', organized by KJSCE, Mumbai, July 2009.
- 17. Attended National Conference on' Advances in Mechanical engineering', organized by RGIT in association with BARC, Mumbai, Jan 2009.
- 18. Attended CEP (International Training Program) on' Nano Technology for Energy Application ', organized by IITB, Mumbai, Dec 2008.
- 19. Attended International Conference on' Heat and Mass Transfer', organized by JNTU, Hyderabad, Jan 2008.
- 20. Attended Workshop on' Alternative Refrigerants and Cycles', organized by IITB & NCL Pune, Mumbai, Aug 2002.
- 21. Attended One day seminar on' Industrial Tribology', organized by KJSCE, Mumbai, Oct 2000.

### Organized

1. Organized short Term Training Programme on "Non Destructive Testing: Integrating Legacy and Emerging New Techniques" from July 08-12, 2024, in association with IQAC\_KJSCE for Faculty members, UG/PG students as well as Research scholars.

#### Delivered

1. Delivered a Lecture on "Solar Thermal Energy Storage" in Short Term Intensive Practical Training Program on Renewable Energy System held at K.J. Somaiya College of Engineering, Mumbai, May 2010.

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Notable Key Scholastic Achievements		
1.	GATE qualified with 91.94 score	

	Notable Positions and Responsibility		
1.	FDC (Faculty Development coordinator at institute level) for mechanical engineering department		
2.	Department Lab coordinator – Mechanical Department		
3.	PG Energy coordinator (2016-2022)		
4.	Lab Incharge- Refrigeration and Air conditioning laboratory		

Dr. Ramola Sinha
Date: 09 / 09/ 2024
Signature of Faculty Member