DR. KIRAN KUMAR K

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Google scholar: https://scholar.google.com/citations?hl=en&user=65VnPSMAAAAJ

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OBJECTIVE: To have an exciting and challenging career in a friendly, team work oriented environment that offers professional growth and provides an opportunity to learn and contribute to the best of my potential.

EDUCATION SUMMARY

SL. NO.	QUALIFICATION (SPECIALIZATION)	INSTITUTION & UNIVERSITY	YEAR OF PASSING	% OF MARKS AND CLASS OBTAINED
1	Ph.D. (Mechanical Engineering and Science)	UBDTCE - Davangere (VTU - Belagavi)	2024	FIRST CLASS
2	M.Tech (Thermal Power Engineering)	UBDTCE - Davangere (VTU - Belagavi)	2017	73.33 (FCD)
3	B.E (Mechanical Engineering)	JNNCE - Shivamogga (VTU - Belagavi)	2012	73.47 (FCD)
4	P.U (PCMB)	AVS Science PU College - Bhadravathi	2008	82.83 (FIRST)
5	SSLC	AVS High School - Bhadravathi	2006	82.40 (FIRST)

TEACHING / RESEARCH EXPERIENCE

Institute	Post Held	University	Duration
IIT, Guwahati	Post-doctoral Fellow	IIT	20/11/2024 to till date
PESITM, Shivamogga	Assistant Professor	VTU, Belagavi	03/08/2017 to 14/11/2024
PESITM, Shivamogga	Lecturer	VTU, Belagavi	21/07/2014 to 12/06/2015
Government Polytechnic/ ITI College, Bhadravathi	Guest Lecturer	Karnataka State Board	01/09/2012 to 30/06/2014

ACADEMIC INTERESTS

- Areas of interest in research: Heat Transfer, Fluid Mechanics.
- Technical skills: ANSYS FLUENT, CFD, GAMBIT, SOLID EDGE, 3D-PRINT ULTIMAKER CURA, ORIGIN, POWER BI

SUBJECTS TAUGHT

1. Fluid Mechanics
2. Heat Transfer
3. Energy Engineering
4. Engineering Graphics
5. Computer Aided Machine Drawing
6. Elements of Mechanical Engineering
7. Basic Thermal Engineering
8. Renewable Energy Sources
9. Thermo-Fluids Engineering
10. Machine Tool Technology

11. Advanced Manufacturing Technologies
12. Non-Ferrous Metallurgy
13. Physical Metallurgy
14. Mechanical Metallurgy and Pyrometry
15. Testing of Metallic Materials
16. Computer Aided Engineering Drawing

NPTEL ONLINE COURSES COMPLETED

1. Successfully completed 12-week course (Jul-Oct 2019) "**Heat Transfer**" with "**Elite+Silver"** grade (Score-86%), Conducted by Indian Institute of Technology - Kharagpur.
2. Successfully completed 8-week course (Aug-Oct 2019) "**Fluid Mechanics**" with "**Elite"** grade (Score-70%), Conducted by Indian Institute of Technology – Guwahati.
3. Successfully completed 12-week course (Jan-Apr 2019) "**Introduction to Fluid Mechanics**" with "**Elite"** grade (Score-64%), Conducted by Indian Institute of Technology - Kharagpur.

INTERNATIONAL CONFERENCE

1. Presented a paper entitled "Determination of Exergy Limits for Different Metal Foam Configurations" at the International Conference on Recent Advances in Modeling and Analysis of Thermal and Energy Systems (RAMATES-2023) From 10-12 May 2023, Organized by Department of Mechanical Engineering, National Institute of Technology Karnataka, Surathkal, India.
2. Presented a paper entitled "Effect of Partial Filling of Metal Foams on Exergy Transfer in a Vertical Channel" towards the 2nd International Conference on Recent Advances in Mechanical Engineering Research and Development (ICRAMERD-2021), organized by the Department of Mechanical Engineering at the Institute of Technical Education & Research, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India during held on 24th – 25th September 2021.
3. Presented a paper titled as "Effect of Spatial Porosity of Metal Foams on Heat Transfer Filled in a Vertical Channel" in 2nd International Conference on Sustainable Energy Solutions for a Better Tomorrow (SESBT2021), organized by VIT Chennai in collaboration with Groningen University, Netherlands during July 23-24, 2021.
4. Presented a paper titled as "Design of Hydraulic Ladle Tilting Device at Pig Casting Machine" in 4th International Conference on Advancement in Engineering, Applied Science and Management (ICAEASM 2018) at Indian Council of Social Science Research, North West Regional Center, Punjab University Campus, Chandigarh, India on 1st July 2018.
5. Presented a paper titled as "Numerical Analysis of Shell and Tube Heat Exchanger Performance with Different Baffle Cut Percentage along with Different Orientations" in International Conference on Latest Concepts in Science, Technology, Management and Humanities (ICLCSTMH) at GIIT, Gwalior, M.P., India on 17th December 2017.

NATIONAL CONFERENCE

1. Presented a paper entitled "Impact of Partial Filling of Metal Foams on Entropy Generation in a Vertical Channel" in the 48th National Conference on Fluid Mechanics and Fluid power (FMFP-2021) held during 27th – 29th December 2021, at BITS Pilani, Pilani Campus, Rajasthan, India.

2. Presented a paper titled as "Power Generation by using Exhaust Gas Heat from an Internal Combustion Engine" in National Conference on Material Processing and Characterization (NCMPC – 2019) organized by PES Institute of Technology & Management, Shivamogga and Co-sponsored by Institute of Engineers, INDIA, on 20th May 2019.
3. Presented a paper titled as "Power Generation by using Kinetic Energy of Exhaust Gases from an Internal Combustion Engine" in National Conference on Material Processing and Characterization (NCMPC – 2019) organized by PES Institute of Technology & Management, Shivamogga and Co-sponsored by Institute of Engineers, INDIA, on 20th May 2019.

INTERNATIONAL JOURNAL PAPER

1. Published a paper entitled "Thermodynamic Evaluation of Metal Foams with Partial Filling in a Pipe" in Physics of Fluids, Volume 36, Issue 9, September 2024, 097150. https://doi.org/10.1063/5.0217709. SCIE Journal (Q1), Impact Factor: 4.1. AIP publications.
2. Published a paper entitled "Outlining the impact of discrete filling of metal foams on thermodynamic performance" in Thermal Science and Engineering Progress, Volume 45, 1 October 2023, 102153. https://doi.org/10.1016/j.tsep.2023.102153. SCIE Journal (Q1), Impact Factor: 5.1. Elsevier publications.
3. Published a paper entitled "Minimization of Exergy Destruction with Discrete Metal Foam Filling in a Pipe under Turbulent Flow Condition" in International Journal of Numerical Methods for Heat and Fluid Flow, Vol. 33 No. 10, pp. 3353-3384. Article publication date: 7 July 2023, https://doi.org/10.1108/HFF-12-2022-0706. SCIE Journal (Q1), Impact Factor: 4.2. Emerald publications.
4. Published a paper entitled "Exergy Transfer and Irreversibility of Metal Foams Filled in a Vertical Channel" in ASME Journal of Thermal Science and Engineering Applications. Vol. 15, Issue 8, 081005-1-15, Aug 2023. https://doi.org/10.1115/1.4062399. SCIE Journal (Q2), Impact Factor: 2.1. ASME publications.
5. Published a paper entitled "Performance Evaluation Based on Exergy Analysis Through Partially Filled Metal Foams in Forced Convection" in ASME Journal of Heat and Mass Transfer, Vol. 145, Issue 8, 082701-1-15, Aug 2023. https://doi.org/10.1115/1.4062214. SCIE Journal (Q2), Impact Factor: 2.8. ASME publications.
6. Published a paper entitled "Flow and heat transfer irreversibility in partial filled metal foams" in International Journal of Thermal Sciences, 184, February 2023, 107968. Available online: 26th October, 2022. https://doi.org/10.1016/j.ijthermalsci.2022.107968. SCIE Journal (Q1), Impact Factor: 4.9. Elsevier publications.
7. Published a paper entitled "Effect of Spatial Porosity of Metal Foams on Heat Transfer Filled in a Vertical Channel" in Materials Today Proceedings, Vol 51, part 3, 2022, pp. 1539-1547. Available online: 12th November, 2021. https://doi.org/10.1016/j.matpr.2021.10.359. Scopus, Elsevier publications**.**
8. Published a paper titled as "Power Generation by using Exhaust Gas Heat from an Internal Combustion Engine" in International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181. Published by, www.ijert.org NCMPC - 2019 Conference Proceedings, Volume 7, Issue 07, dated 06/06/2019, pp. 1-5. DOI: 10.17577/IJERTCONV7IS07024

9. Published a paper titled as "Power Generation by using Kinetic Energy of Exhaust Gases from an Internal Combustion Engine" in International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181. Published by, www.ijert.org NCMPC - 2019 Conference Proceedings, Volume 7, Issue 07, dated 06/06/2019, pp. 1-5. DOI: 10.17577/IJERTCONV7IS07025
10. Published a paper titled as "Design of Hydraulic Ladle Tilting Device at Pig Casting Machine" in Journal of Emerging Technologies and Innovative Research (JETIR), Vol. 5, Issue 7, July 2018, pp. 1450-1455 https://www.jetir.org/papers/JETIRC006250.pdf (ISSN-2349-5162). UGC Approved (Journal number: 63975), Impact Factor: 7.95
11. Published a paper titled as "Numerical Analysis of Shell and Tube Heat Exchanger Performance with Different Baffle Cut Percentage along with Different Orientations" in International Journal of Engineering Technology Science and Research (IJETSR), Volume 4, Issue 12, December 2017, ISSN 2394-3386.
12. Published a paper titled as "Numerical Analysis of Shell and Tube Heat Exchanger Performance with Different Baffle Space and Baffle Cut Orientations using CFD" in International Journal of Engineering Technology Science and Research (IJETSR), Volume 4, Issue 7, July 2017, ISSN 2394-3386.

BOOK CHAPTERS

1. The paper entitled "Impact of Partial Filling of Metal Foams on Entropy Generation in a Vertical Channel" is published as a part of the Lecture Notes in Mechanical Engineering book series in "Fluid Mechanics and Fluid Power (Vol. 1)," March 30, 2023, pp 465-470. https://doi.org/10.1007/978-981-19-7055-9_78. Scopus, Springer publications.
2. The paper entitled "Effect of Partial Filling of Metal Foams on Exergy Transfer in a Vertical Channel" is published as a part of the Lecture Notes in Mechanical Engineering book series in "Recent Advances in Mechanical Engineering," June 04, 2022, pp 157-166. https://doi.org/10.1007/978-981-16-9057-0_17. Scopus, Springer publications.

BOOKS PUBLISHED – NPTEL COURSES TRANSLATED IN KANNADA LANGUAGE

1. Industrial Automation and Control (Contribution – Lecture 10 to 18)
2. Electromagnetic Theory (Contribution – Lecture 71 to 85)
3. Product Design and Development (Contribution – Lecture 11 to 20)
4. Applied Thermodynamics for Engineers (Contribution – Lecture 7 to 12; Lecture 25 to 36)
5. Non-Conventional Energy Resources (Contribution – Lecture 29 to 35)
6. Differential Equations for Engineers (Contribution – Lecture 56 to 64)
7. Engineering Drawing and Computer Graphics (Contribution – Lecture 1 to 11)
8. Disaster Recovery and Build Back Better (Contribution – Lecture 1 to 10)
9. Engineering Metrology (Contribution – Lecture 28 to 45)

WORKSHOP/FDP/STTP ATTENDED

Sl. No.	Event	Particulars					
		1 week & above	5-Days	4-Days	3-Days	2-Days	1-Days
01	GIAN Course	01	--	--	--	--	--
02	Faculty Development Program	06	06	01	03	01	--
03	Short Term Training Programme	02	01	--	--	01	--
04	Webinar	--	--	--	--	03	23

RESOURCE PERSON / GUEST SPEAKER

1. Delivered a talk on "Karnataka Learning Management System and Signup" during the student induction program held at PESPT, Shivamogga on 26/06/2024.
2. Delivered a talk on "Heat Transfer Enhancement with the Application of Metal Foams and Finding its Exergy Limits" as resource person on 31st January 2024 in VGST sponsored FDP on "Porous Medium – Theory to Industrial applications" held from 29th January to 1st February 2024 organized by Dept. of Mathematics & Dept. of Mechanical Engineering College, Haveri, Karnataka.
3. Delivered a talk on "Karnataka Learning Management System" (NPTEL/SWAYAM/Infosys springboard) during the student induction program held at PES Polytechnic, Shivamogga on 26/09/2022.

AWARDS

1. Received best paper presentation award on the article entitled "Effect of Partial Filling of Metal Foams on Exergy Transfer in a Vertical Channel" towards the 2nd International Conference on Recent Advances in Mechanical Engineering Research and Development (ICRAMERD-2021), organized by the Department of Mechanical Engineering at the Institute of Technical Education & Research, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India during held on 24th – 25th September 2021.

INTERNATIONAL JOURNAL REVIEWER

1. Physics of Fluids, AIP Publishing, SCI Journal (Q1), IF 4.6, CS 6.5.

INTERNSHIP

The internship was carried out at Visvesvaraya Iron and Steel Plant, Bhadravathi for a period of four months during the academic year 2016. During internship training two projects works namely "Conversion of electromechanical actuator into hydraulic actuator at weigh hopper area" and "Design of hydraulic ladle tilting device at PCM-1" were completed successfully.

PERSONAL INFORMATION

- Father name : Kantharaju
- Date of Birth : 17-04-1991
- Gender : Male
- Linguistic abilities: English, Kannada, Hindi.
- Nationality : Indian
- Marital Status : Unmarried

DECLARATION

I hereby certify that above mentioned particulars are correct to the best of my knowledge and belief.

Date: Yours faithfully
Place: Bhadravathi

(Dr. Kiran Kumar K)