

VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

KNOWLEDGE ASSET 2022-23

Name: P Raja Shekhar
Designation: Assistant Professor
Department: H&S
Mail I'd: rajashekhar_p@vnrvjiet.in



Experience (in years): 18 Teaching: 18 Research: 8 Others (if any, specify):

1. Educational / Technical qualifications:

| S. No | Level (UG / PG / Ph. D) | Year of passing | Specialization |
|-------|-------------------------|-----------------|-------------------------------------|
| 1 | Ph. D | 2023 | Fluid Mechanics |
| 2 | PG | 2005 | Mathematics |
| 3 | UG | 2003 | Maths, Stats, Computer Applications |

2. Teaching and Learning:

- 2.1. Teaching Interests: Differential Equations, Numerical Methods, Probability & Statistics, Matrices, Complex Variables, Integral Transforms, Calculus
- 2.2. Novel Teaching & Learning Techniques adopted:
- 2.3. Involvement in curriculum updating / Design:

3. Co-curricular and Extra-Curricular Activities

- 3.1. Interests and Hobbies: Playing Chess, Carroms
- 3.2. CCA/ECA Organized:
- 3.3. CCA/ECA participated:
- 3.4. Counselling and Mentoring Activity:
- 3.5. Committees involved in:
Department level:
Institute Level:

4. Conference / Workshop / Seminar / Guest Lectures:

- 4.1 Conducted:
- 4.2 Attended:
 1. **Participated in 5 Days Online International Faculty Development Program on Data Science and Chat GPT organized by K L Deemed to be University in Collaboration with ExcelR during 15th May 2023 to 19th May 2023**
 2. **Participated in a 5-Day International workshop on Applicable Mathematics for Science and Engineering - Recent Advances (AMSE - 2023) held at VIT-AP University, Andhra Pradesh, India during 16 – 20 February, 2023 organized by the Department of Mathematics, School of Advanced Sciences.**

3. **Participates in a five day workshop on “Statistical Analysis using Python” held at VNRVJIET, Hyderabad during 6-11 March 2023 organised by Department of Humanities & sciences & CSE(CYS, DS) and AI&DS.**
4. Participated in a Third International Conference on “Mathematical, Physical and Computational Sciences” held on 27th and 28th of August 2021 by Aurora Degree and PG college, Hyderabad, under APTSMS.
5. Participated in a 5- Day FDP on “Applications of Mathematics and Statistics in Engineering” (AMSE-2020), 23rd- 27th Nov, 2020 organized by the Department of Mathematics, Malla Reddy Engineering College (Autonomous), Secunderabad.
6. Participated in the “Five Days International e-Seminar on Recent Research in Mathematics (ISRRM-2020)” from 11th to 15th September, 2020 organized by Department of Mathematics, School of Science, GITAM, Bengaluru.
7. Participated in the “FOUR DAY FACULTY DEVELOPMENT PROGRAMME ON APPLICATIONS OF MATHEMATICS IN ENGINEERING” conducted by department of Mathematics, KPRIET, from 25-08-2020 to 28-08-2020
8. Participated in the online webinar “An Introductory Course on Fluid Dynamics” organized by the Department of Mathematics, CHRIST (Deemed to be University), Bangalore during 17-20 August and 24-28 August 2020.
9. Attended a five-day national webinar on “Fluid Dynamics from Mathematicians Viewpoint” organized by Department of Mathematics, School of Science, GITAM (Deemed to be University), Hyderabad during 9 -13 August, 2020.
10. Attended two days’ International Webinar on ‘FLUID DYNAMICS AND ITS APPLICATIONS’, Organised by the Department of Mathematics, Government First Grade College, Vijayanagara, Bengaluru on 28th and 29th May 2020, in association with Department of Mathematics, Bangalore University, Bengaluru.
11. Participated in one week Faculty Development Programme on AMPERE-2019(Advances in Mathematics and Physical Sciences and their educative reflections in Engineering) conducted by department of Basic Sciences and Humanities, VITS, from 1-9 July, 2019.
12. Attended a short-term training programme on SYMBOLIC COMPUTING AND NUMERICAL PROGRAMMING USING MATHEMATICA/MATLAB at NIT Warangal during July 10-12, 2015.
13. Attended XX Congress of APSMS-2011 and a National conference in Mathematical Modelling & Simulation at Swarna Bharathi Institute of Science and Technology
14. Attended Faculty enablement programme-Aptitude/soft skills conducted by IEG-JKC from 26th Nov to 1 Dec 2007

15. Academic Contribution and Research & Consultancy:

5.1. Invited Lectures:

5.2. Articles / Chapters published in Books:

5.3. Books published as single author or as editor:

5.4. Projects Guided:

a) UG: b) PG:

5.5. Research Interests: Fluid Mechanics

5.6. Ph.D students :

a) Enrolled: b) Submitted c) Awarded: **2023**

5.7. Papers published in reviewed journals

| S.No | Title of the Paper | Journal Name Vol.No. PP | ISBN/ISSN No. | Impact Factor/ Citation Index | National/ International |
|------|---|--|------------------|--|----------------------------|
| 1 | Thermal Radiation Effect on Entropy in Hydromagnetic Peristaltic Flow of a Jeffrey Nanofluid Through an Unsymmetrical Channel | International Journal of Innovative Technology and Exploring Engineering (IJITEE) Volume-9 2015-2021 | 2278-3075, | 0.10 | International |
| 2 | Second law analysis of MHD Jeffrey fluid through asymmetric channel with peristalsis | AIP Conference Proceedings (SCOPUS) Volume-2246 020042-1 - 020042-8 | 1551-7616 | 0.4 | International |
| 3 | Heat generation and chemical reaction in flow propagated by peristalsis incidence of radiation in MHD Jeffrey nanofluid | INDIAN JOURNAL OF SCIENCE AND TECHNOLOGY (WEB OF SCIENCE) Volume-13, Issue 31 3213-3221 | 0974-5645 | 0.6 | International |

5.8. Papers presented at National / International conferences:

| S.No | Title of the Paper | Names of the Conference/ Seminars | National/ International | Period |
|------|--------------------|--------------------------------------|----------------------------|--------|
|------|--------------------|--------------------------------------|----------------------------|--------|

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|---|--|--|---------------|----------------------|
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| 1 | Entropy analysis in peristaltic flow of MHD Jeffrey fluid | INTERNATIONAL CONFERENCE ON NUMERICAL HEAT TRANSFER AND FLUID FLOW (NHTFF-2018) | INTERNATIONAL | 19-21 Jan, 2018 |
| 2 | Second Law Analysis in Magneto Hydro Dynamics in Peristaltic Transport of Jeffrey nano fluid through an asymmetric channel | National Conference on Advances in Computational Fluid Dynamics | National | 12-13 Apr 2019 |
| 3 | Effects of Brownian motion and thermophoresis on Peristaltic transport of a Jeffrey nanofluid entropy generation | National Conference on Recent Advances in Mathematics and its Industrial Applications (NCRAMIA-2020) | National | 06-07, February 2020 |

5.9. Sponsored research Projects:

| S.No | Title | Agency | Period | Grant amount | Ongoing / Completed |
|------|-------|--------|--------|--------------|---------------------|
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5.10 Consultancy Projects:

| S.No | Title | Agency | Period | Sanctioned Amount | Ongoing / Completed |
|------|-------|--------|--------|-------------------|---------------------|
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16. Awards / Honours received:

- Qualified **SET** in 2018
- Completed **NPTEL** course on “**Introduction to R Software**” in 2021

17. Motto: