Dr. Manoj Kumar Triveni

Assistant Professor

Department of Mechanical Engineering

Tripura Institute of Technology, Narsingarh
(A State Government Funded Institute)

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EDUCATIONAL DEGREES

2013-2017 Ph.D.
Mechanical Engineering,
National Institute of Technology, Agartala, Tripura, India.

Thesis: Study of Fluid Flow and Heat Transfer within Enclosure of Different Configurations

2011-2013 M. Tech
Thermal Science and Engineering,
National Institute of Technology, Agartala, Tripura, India.

Dissertation Title: Numerical Simulation of Laminar Natural Convection in an Arch Cavity

2007-2011 B.E.
Mechanical Engineering,
Rajiv Gandhi Proudyogiki Vishwavidyalaya (RGPV), Bhopal, MP, India.

GATE EXAMINATION

- Scored 95.5 percentile in 2011, All India rank: 3678

FIELD OF RESEARCH INTEREST

- Natural and mixed convection heat transfer study within enclosures.
- Flow through duct and micro channels.

ACADEMIC ACHIVEMENTS

- **NPTEL Discipline Star,** Certification of Appreciation**,** IIT Madras, December 2020.
- **NPTEL Believer,** Certification of Appreciation**,** IIT Madras, Jan-Dec 2020.
- **Mentor three students**, Laws of Thermodynamics, four-week NPTEL course, IIT Kharagpur.
- **Mentor one student**, Thermodynamics, twelve-week NPTEL course, IIT Madras.
- **Topper**, Thermal Operations in Food Process Engineering: Theory and Applications, twelve-week NPTEL course.
- **Gold Medal, Top 1%,** Laws of Thermodynamics, four-week NPTEL course.
- **Silver Medal, Top 5%,** IC Engine and Gas Turbines, twelve-week NPTEL course.
- **Silver Medal**, **Top 2%**, Advanced Fluid Mechanics, twelve-week NPTEL course.
- **Silver Medal,** Computational Fluid Dynamics for Incompressible Flows, twelve-week NPTEL course.
- Awarded **MHRD Scholarship** in M. TECH**,** 2011 – 2013.
- Awarded **MHRD Scholarship** in Ph. D. 2013 –2017.

RESEARCH PUBLICATIONS

1. **Triveni, M.K.,** Panua, R.S., Numerical simulation of natural convection in a triangular enclosure with caterpillar (C)-curve shape hot wall, International Journal of Heat and Mass Transfer, *Elsevier*, v. 96, pp. 535-547, 2016. **SCI-5.584.**
2. **Triveni, M.K.**, Panua, R.S., Study of mixed convection in a caterpillar wavy lid-driven triangular cavity filled with nanofluid using Artificial Neural Network, Canadian Journal of Physics, v. 96 (5), pp. 476-493, 2018. **SCIE-1.24.**
3. **Triveni, M.K.,** Panua, R.S., Natural and Mixed Convection Study of Isothermally Heated Cylinder in a Lid-Driven Square Enclosure Filled with Nanoluid, Arabian Journal for Science and Engineering, *Springer*, vol.46, pp. 2505–2525. 2020. **SCIE-2.334.**
4. **Triveni, M.K.,** Panua, R.S., Study of free convection in a double heating strips triangular cavity for various arrangements of cold walls, Arabian Journal for Science and Engineering, *Springer*, v. 43, pp. 1455-1473, 2018. **SCIE-2.334.**
5. **Triveni, M.K.,** Panua, R.S., Sen, D., Natural Convection in a Partially Heated Triangular Cavity with Different Configurations of cold walls, Arabian Journal for Science and Engineering, *Springer*, v. 40, pp.3285-3297, 2015. **SCIE-2.334.**

6. **Triveni, M.K.,** Sen D., Panua, R.S., Laminar natural convection for thermally active partial side walls in a right-angled triangular cavity, Arabian Journal for Science and Engineering, *Springer*, v. 39, pp. 9025-9038, 2014. **SCIE-2.334.**
7. **Triveni, M.K.,** Panua, R.S., Sen, D., Effects of variant positions of cold walls on natural convection in a triangular cavity, Journal of Applied Fluid Mechanics (JAFM), v. 9, pp. 185-193, 2016. **SCIE-1.405.**
8. **Triveni, M.K.,** Sen, D., Panua, R.S., Numerical study of laminar natural convection in an arch enclosure filled with Al_2O_3-water based nanofluid, Journal of Applied Fluid Mechanics (JAFM). v. 9, pp. 1927-1936, 2016. **SCIE-1.405.**
9. **Triveni, M.K.,** Panua, R.S., Free convection in a caterpillar shaped triangular enclosure filled with different nanofluids, International Journal of Heat and Technology, v. 37, pp. 398-406-18, 2019. **SCOPUS.**
10. **Triveni, M.K.,** Panua, R.S., Numerical study of natural convection in a right triangular enclosure with sinusoidal hot wall and different configurations of cold walls, Fluid Dynamics and Material Processing, Vol. 14, pp. 1-21, 2018. **SCOPUS.**
11. **Triveni, M.K.,** Panua, R.S., Numerical analysis of natural convection in a triangular cavity with different configuration of hot wall, International Journal of Heat and Technology, v. 35, pp. 11-18, 2017. **SCOPUS.**
12. Gogoi, P., **Triveni, M.K.,** Panua, R.S., Numerical investigation of 3d turbulent forced convective heat transfer and friction characteristics of a square duct, International Journal of Heat and Technology. v. 35, no. 4, pp. 919-932, 2017. **SCOPUS.**
13. Nahak, M.P., **Triveni, M.K.**, Panua, R.S., Numerical investigation of mixed convection in a lid-driven triangular cavity with a circular cylinder using ANN modelling, International Journal of Heat and Technology. v. 35, no. 4, pp. – 903-918, 2017. **SCOPUS.**
14. **Triveni, M.K.,** Sen D., Panua, R.S., Convective heat transfer analysis in an arch enclosure, Frontiers in Heat and Mass Transfer (FHMT), v. 6, 2, 2015. **SCOPUS.**
15. **Triveni, M.K.,** Sen D., Panua, R.S., Numerical analysis of natural convection in a right- angle triangular enclosure, Frontiers in Heat and Mass Transfer (FHMT), v. 5, 12, 2014. **SCOPUS.**
16. **Triveni, M.K.,** Panua, R.S., Study of free convection in a right wedge-shaped enclosure with a curvilinear hot wall for different arrangements of cooler walls, International Journal of Thermofluid Science and Technology. ***Accepted***. 2021. **SCOPUS.**

INTERNATIONAL CONFERENCES

- Triveni, M.K., Sen D., Panua, R.S., Natural convection heat transfer in an arch enclosure filled with a nanofluid, *6th BSME International conference on Thermal Engineering*, Dhaka, Bangladesh, 19-21st December, 2014, paper No. 012, Accepted but not attended.

NATIONAL CONFERENCES

- Triveni, M.K., Sen D., Panua, R.S., Numerical Study of Laminar Natural Convection in a Partially Heated Arch Cavity, *National Seminar on Energy Science and Engineering*, TIT Tripura, India, 29-30th November, 2013, paper Code. ESE –113.

MEMBER OF EDITORIAL BOARD OF JOURNALS

- American Journal of Mechanical and Materials Engineering (AJMME), Science-PG.
- SCIREA Journal of Physics, Science Research Association.
- SCIREA Journal of Mechanical Engineering, Science Research Association.

MEMBER OF PROFESSIONAL SOCIETIES

- Associate Member, The Institution of Engineers (India).
- Life Member, Indian Society for Heat and Mass Transfer (ISHMT).
- Life Member, International Association of Engineers (IAENG).

REVIEWER OF JOURNALS

- Journal of Thermal Analysis and Calorimetry, Springer, Netherlands.
- Heat Transfer, Wiley, United States.
- International Journal of Modelling and Simulation, Taylor & Francis, United Kingdom.
- International Journal of Heat and Technology, International Information and Engineering Technology Association, Itlay.
- Frontiers in Heat and Mass Transfer (FHMT), Global Digital Central, United States.

PROFESSIONAL SUMMARY

- 4.1 years' experience in teaching and administration.
- Conversancy in working at Institute and University departments.
- Acquainted with administrative work.
- Internally generated revenues for the institute.

- Actively participate in continued learning through workshop, online courses and professional research.
- Published numerous research articles in reputed international journals.

PROFESSIONAL CAREER

❖ **Tripura Institute of Technology, Narsingarh**
Assistant Professor, Jan 2nd, 2018 – Present

Subject Taught

UG Thermodynamics, Heat Transfer, Fluid Mechanics

Lab: Thermodynamics, Heat Transfer

PG Advanced Fluid Dynamics

PG thesis guided

2021	Numerical Investigation of Steady Flow of Air Through Curved Inlet Port of CI Engine	Completed
2019	Study of Numerical Simulation of Heat Transfer Through Duct	Completed

ADMINISTRATIVE RESPONSIBILITIES

Period	Responsibilities	Position/ Institution
3/10/2020 to 31/12/2020	Member of admission committee	Assistant Professor TIT, Agartala
25/10/2018 to PRESENT	Member of Training and Placement cell	Assistant Professor TIT, Agartala
16/04/2018 to 20/08/2018	Member of SAR report preparation	Assistant Professor TIT, Agartala
02/04/2018 to PRESENT	Member of disciplinary committee	Assistant Professor TIT, Agartala
01/02/2018 to PRESENT	Member of Research and development activities	Assistant Professor TIT, Agartala

ALONGSIDE TEACHING AND ADMINISTRATIVE WORK

NPTEL COURSES

Computational Fluid Dynamics for Incompressible Flows	NPTEL-FDP	12 weeks	IIT Guwahati
Fundamentals of Convective Heat Transfer	NPTEL-FDP	12 weeks	IIT Guwahati
Advanced Fluid Mechanics	NPTEL-FDP	12 weeks	IIT Kharagpur
IC Engine and Gas Turbines	NPTEL-FDP	12 weeks	IIT Guwahati
Thermal Operations in Food Process Engineering: Theory and Applications	NPTEL-FDP	12 weeks	IIT Kharagpur
Computational Fluid Dynamics	NPTEL-FDP	12 weeks	IIT Kharagpur
Numerical Methods	NPTEL	8 weeks	IIT Roorkee
Laws of Thermodynamics	NPTEL	4 weeks	IIT Kharagpur

ATAL-FDP

Blended Learning and Flipped Classroom	ATAL-FDP	National Institute of Technical Teachers Training and Research, Chandigarh	February 1–5, 2021
Productivity Enhancement	ATAL-FDP	Kumaraguru College of Technology, Coimbatore, Tamil Nadu	January 25–29, 2021
Design Thinking	ATAL-FDP	JNN College of Engineering, Shimoga	January 18–22, 2021
CFD	ATAL-FDP	LBS College of Engineering, Kasaragod	January 4–8, 2021

WORKSHOP/FDP/ PDT ATTENDED

- One-week online Workshop on **Recent Trends in Thermo-Fluids (RTTF21)** organized by NIT Sikkim from February 22–26, 2021.
- One-week online Faculty Development Program on **Advanced Manufacturing Enterprise in Digital Era** organized by Aditya Institute of Technology & Management, Tekkali from June 1-5, 2020.
- TEQIP-III sponsored Five-days workshop on **Optimization Techniques in Multidisciplinary Research** conducted by National Institute of Technology, Agartala from November 25-29, 2019.
- TEQIP-III sponsored Two-days Faculty Development Program on **Reliability Engineering and Its Application** conducted by Tripura Institute of Technology, Narsingarh from 21-22 November

2019.

- One Week TEQIP-III sponsored Training Program on **Advanced Pedagogy & Digital Tool for TEQIP Faculty Members** conducted by IIT Kharagpur from June 3-7, 2019.
- One Week **Professional Development Training** under TEQIP-III conducted by IIM Tiruchirappalli from December 3-7, 2018
- TEQIP-III sponsored two-day workshop on **Boiling** conducted by Jadavpur University from September 7-8, 2018.
- **Member of organizing committee** in two-day Faculty Development Programme in Finite Element Method in Solid Mechanics: Analysis, Approach and Applications conducted by Tripura Institute of Technology, Narsingarh from July 23-24, 2018.
- Two-day TEQIP-III project sponsored workshop on **Understanding Outcome Based Education System from the Prospective of NBA Accreditation** conducted by Tripura Institute of Technology, Narsingarh from July 5-6, 2018.
- Two-day TEQIP-III project sponsored workshop on **Outcome Based Accreditation for Undergraduate Engineering Programs** conducted by Tripura Institute of Technology, Narsingarh from March 20-21, 2018.
- MHRD-TEQIP-KITE five-day TEQIP-III Faculty **Induction Workshop on Pedagogy**, Research and TEQIP Execution conducted by IIT Bombay from February 5-9, 2018.

❖ **ICFAI University, Tripura**
Assistant Professor, July, 2017 – December, 2017

Subject Taught

UG Thermodynamics, Quality Assurance and Reliability

Lab: IC Engine

WORKSHOP ATTENDED DURING PH.D.

- Two-day national workshop on **Advances in Two-Phase Flow and Heat Transfer** conducted by NIT, Agartala. March 25-26, 2016.
- Three-day workshop on **Computational Study on Fluid Transport Phenomena** conducted by NIT, Agartala. February 5-7, 2016
- Three-day national workshop on **Recent Advancement in Soft Computing Techniques** conducted by NIT, Agartala. January 29-31, 2016.
- One-day workshop on **Intellectual Property Right** conducted by NIT, Agartala. August 10, 2012.

PERSONAL INFORMATION

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Jharkhand-816120, India
DOB: 20th February1989