

RAMESH KRISHNAN L



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Professional Membership: ASHRAE, ISHRAE

Specialization & Research Interest: Refrigeration and Air Conditioning & Advanced Ventilation methods, Indoor Environmental Quality, Net-zero energy building, Computational Fluid Dynamics, Building Energy Performance Simulation, Data analysis and HVAC system optimization

EDUCATION

Ph.D. – Thermal Sciences (GPA: 8.25/10)

National Institute of Technology Calicut, Kozhikode, Kerala, India.

March 2026

M.E., in Refrigeration and Air Conditioning (GPA: 7.6/10)

College of Engineering Guindy, Chennai, India.

Anna University – Chennai.

Sep 2012-May 2014

B.E., in Mechanical Engineering (Percentage: 72/100)

FX Engineering College, Tirunelveli, Tamil Nadu.

Anna University – Chennai.

July 2007-May 2010

D.M.E., in Mechanical Engineering (Percentage: 85.5/100)

Government Polytechnic College, Thoothukudi, Tamil Nadu.

DOTe – Chennai.

June 2004-May 2007

PROFESSIONAL APPOINTMENTS

Assistant Professor, Department of Mechanical Engineering,
KCG College of Technology, Chennai-97

July 2023 onwards

Teaching Assistant, Department of Mechanical Engineering,
National Institute of Technology Calicut, Kozhikode, Kerala, India.

July 2017 - June 2023

Assistant Professor, Department of Mechanical Engineering,
KCG College of Technology, Chennai-97

June 2015 – April 2017

Trainee HVAC Design
MCD Berl, Bangalore

Sep 2014 – March 2015

Temporary **Lecturer**, Department of Mechanical Engineering,
Government Polytechnic College, Thoothukudi, Tamil Nadu.

June 2010 – Aug 2012

Research and Teaching Assistant – National Institute of Technology Calicut

July 2017 – June 2023

- Subjects Assisted - Thermal environmental engineering, HVAC system Design, Energy efficient buildings, Modern refrigeration system, Advanced fluid mechanics, Analytical heat transfer, Advanced computational methods of fluid flow and heat transfer, Fluid mechanics and heat transfer Lab, Engineering graphics.
- Computational fluid dynamics lab - Assisted as lab in charge
- Firsthand knowledge with documentation regarding NBA certification
- Supervised - 7 M.tech students' dissertations in the area of advanced ventilation methods

Assistant professor – KCG College of Technology, Chennai

June 2015 – April 2017

- Subjects Taught,
- Thermal engineering, Heat and mass transfer, Applied thermodynamics, Engineering graphics and Basics of mechanical engineering
- Heat transfer laboratory in charge
- Firsthand knowledge with documentation regarding NBA certification
- Supervised – 3 batches (12 students) of BE students in the area of building air conditioning system and alternate refrigerants

Lecturer (Temporary) – Government Polytechnic College, Thoothukudi

June 2010 – August 2012

- Subjects Taught – Thermal engineering, Applied thermodynamics, Engineering graphics, Fluid mechanics and machinery, Refrigeration and air conditioning and Strength of materials.

KEY COMPETENCIES

Simulation Software

- ANSYS Workbench
- EnergyPlus
- Design Builder
- EQuest

3D & 2D Modeling Software

- CREO
- AUTOCAD, RIVET (basics level)

Data Analysis Tool

- Microsoft Excel,
- Minitab, SPSS and Origin Pro
- Basics of Machine Learning
- R software

Optimization Techniques

- Taguchi
 - Response surface methodology
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PUBLICATIONS

RESEARCH ARTICLES IN PEER-REVIEWED JOURNALS

- Abhisaar Kaushal, **Ramesh Krishnan L**, A Bakhirathan, Gangadhara Kiran Kumar L “**Thermal Comfort and Indoor Air Quality Assessment of a Single-Bed Intensive Care Unit Using Impinging Jet Ventilation**” Journal of Applied Fluid Mechanics (2026) Vol. 9.
- **Ramesh Krishnan L**, Gangadhara Kiran Kumar L, “**Numerical investigation of the distribution of indoor environment variables and exhaled droplets of aerosol in an educational institute computer laboratory**” Journal of Thermal Science and Engineering Applications (2024) – ASME.
- **Ramesh Krishnan L**, and L. Gangadhara Kiran Kumar “**A field study on the indoor environmental quality factor and energy savings of an office building integrated with underfloor air conditioning system in India**” Science and technology for the built environment (2022) 29:2, 109-130 – Taylor and Francis.
- **Ramesh Krishnan L**, Karthik R, Gangadhara Kiran Kumar L “**Experimental investigation of the indoor environment assessment on conventional and hybrid mixing ventilation system**” Springer Lecture Notes in Mechanical Engineering, (2023): 527-531.
- **Ramesh Krishnan L**, and L. Gangadhara Kiran Kumar “**Computational analysis of thermal comfort, CO₂ and particle trajectory in an office room model with two different air-conditioning systems**” IHMTC 2021 - Begell house digital library, (2021): 2225-2230
- **Ramesh Krishnan L**, and L. Gangadhara Kiran Kumar “**Computational analysis of indoor air distribution assessment on the under-floor air-conditioning system**” Springer Lecture Notes in Mechanical Engineering, (2021): 769-777.
- A Maheshwar, **L Ramesh Krishnan** and L Gangadhara Kiran Kumar “**Thermal comfort analysis of a naturally ventilated regular size room equipped with ceiling fan**” Journal of Physics: IOP Conf. Ser. 2054 012002; (2021)
- L. Gangadhara Kiran Kumar, R Karthik and **Ramesh Krishnan L** “**Computational study on the performance of personalized ventilation assisted with a conventional air conditioning system applied to an office room environment**” AIP Conference Proceedings 2161, 020033 (2019)
- Ijas Ahmed, M., **L. Ramesh Krishnan**, and L. Gangadhara Kiran Kumar. “**Modeling and simulation of a building towards energy efficiency.**” International Journal of Innovative Technology and Exploring Engineering, 8 (2019): 1063-1073.

PRESENTED AT INTERNATIONAL CONFERENCES

- Imroz Ahmed, **Ramesh Krishnan L**, Gangadhara Kiran Kumar L, “**Numerical Analysis of Distribution and Deposition Rate of Respiratory Droplets and Aerosol Particles in an Underfloor Air Conditioning Room**” 8th National and 2nd International Conference on Refrigeration and Air Conditioning (NCRAC 2024), IIT Madras, India – February 2024.
- **Ramesh Krishnan L**, Gangadhara Kiran Kumar L, “**Investigation of the ventilation performance for an underfloor air distribution system using combined Taguchi**

optimization and CFD” 7th National and 1st International Conference on Refrigeration and Air Conditioning (NCRAC 2022), **IIT Guwahati** – 781039, India – February 2022.

- **Ramesh Krishnan L**, Gangadhara Kiran Kumar L, “**Computational analysis of thermal comfort, CO₂ and particle trajectory in an office room model with two different air-conditioning system**” 26th National and 4th International ISHMT-ASTFE Heat and Mass Transfer Conference, **IIT Madras**, Chennai-600036, Tamil Nadu, India – December 2021.
- **L Ramesh Krishnan** and L Gangadhara Kiran Kumar, “**Impacts of environmental factors on the COVID-19 transmission for the tropical region in India**”, International Conference on Energy and Environment (ICEE 2021), **Jyothi Engineering College**, Thrissur 679531 – April 2021.
- A Maheshwar, **L Ramesh Krishnan** and L Gangadhara Kiran Kumar, “**Thermal comfort analysis of a naturally ventilated regular size room equipped with ceiling fan**”, International Conference on Advances in Thermal Engineering and Applications (ICATEA – 2021), **SRM University**, Chennai 603203 - March 2021.
- **Ramesh Krishnan L**, Gangadhara Kiran Kumar L, “**Comparative study of energy analysis on underfloor and split air conditioning system**”, 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2019), **IIT Roorkee**, Uttarakhand 247667 – December 2019.
- **Ramesh Krishnan L**, Mohamed Ilyas, Gangadhara Kiran Kumar L, “**Computational analysis of PCM based cascaded thermal energy storage in solar assisted vapour absorption refrigeration system**,” 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2019), **IIT Roorkee**, Uttarakhand 247667 – December 2019.
- Karthik. R, **Ramesh Krishnan L**, and Gangadhara Kiran Kumar. L “**Computational study on performance of personalized ventilation assisted with conventional air conditioning system applied to an office room environment**,” 2nd International conference on Sustainable Energy Resources, Materials and Technologies (ISERMAT-2019), **SSN college of engineering**, Chennai 603110 - March 2019.
- Siva arun, Manoj, Ranjith, **Ramesh Krishnan L**, “**Comparative study and the performance characteristics of a vapor compression refrigeration system using HFC 134a and HC blend refrigerants**” International Conference on Mechanical Engineering Design, **SSN College of Engineering**, Chennai 603110 - April 2016.

PRESENTED AT NATIONAL CONFERENCES

- **Ramesh Krishnan L**, Karthik R, Gangadhara Kiran Kumar L “**Experimental investigation of the indoor environment assessment on conventional and hybrid mixing ventilation system**” 48th National Conference on Fluid Mechanics and Fluid Power (FMFP), **BITS Pilani**, Pilani Campus, RJ, India. – December 2021.
- **Ramesh Krishnan L**, Gangadhara Kiran Kumar L “**Computational analysis of indoor air distribution assessment on under-floor air conditioning System**” 46th National Conference on Fluid Mechanics and Fluid Power (FMFP), **PSG college of technology**, Coimbatore 641 004 - December 2019.

- **L Ramesh Krishnan** and P. Balachander **“CFD analysis of an underfloor and overhead air distribution system in an office building”** in National Conference held at Dhanalakshmi Srinivasan College of Engineering & Technology in Chennai – March 2014.
- **L Ramesh Krishnan** and P. Balachander **“CFD analysis of an underfloor air distribution system in a large indoor environment”** in National Conference held at **Vellammal Engineering College** in Chennai - March 2014.

INDUSTRIAL TRAINING / FACULTY DEVELOPMENT PROGRAM/WORKSHOP/ WEBINAR

- Attended twelve days Online Refresher Course on **“Fluid Mechanics in Action: Principles, Advances and Applications”** organized by Malaviya Mission Teacher Training Centre, IIT(ISM) Dhanbad, Jharkhand from 15th September to 26th September 2025.
- Attended a half-day workshop on **“Natural Refrigerants-Based HVAC&R Systems,”** organized by IIT Madras under the Future Refrigeration: INDEE+ Workshop, held at NAC II Block on 2 April 2025.
- Attended two weeks of online training on **“AI-ML”** organized by Research Forum NIT Calicut, Kozhikode, from 13/2/2023 to 24/02/2023.
- Attended a five-day **SPARC online workshop on “CO₂ refrigeration systems: Fundamentals, Advancements, and Applications”** jointly organized by IIT Madras, IISc Bengaluru and NTNU Norway from 10/10/2022 to 14/10/2022.
- Attended seven days of FDTP **“ME 6002-Refrigeration and Air Conditioning”** by the Center for Faculty Development at Anna University, Chennai – in December 2016.
- Attended seven days of FDTP **“ME 6404-Thermal Engineering”** by the Center for Faculty Development at Anna University, Chennai – in December 2015.
- Attended a five-day Training Program on **“Instructional Design and Delivery Systems”** by the Ministry of Human Resource Development at KCG College of Technology, Chennai – in June 2015.
- Attended one-month training in **“Building Air Conditioning”** in the building of New Railway Hospital, Perambur-600011 and Indian Maritime University, Semmancherry, under Season control Pvt Ltd, Chennai-600014 - May 2013.
- Attended ACREX (Air conditioning and refrigeration Expo) 2013-2021 in Mumbai/Bangalore.
- Webinar on **“Design Builder overview”**, Supported by Design Builder, 19 June 2024, USA.
- Webinar on **“Energy simulation for ECBC-2017”**, PEDAs, BEE and supported by Ela Green, Dec 2020
- Webinar on **“Solution for existing buildings having performance + IEQ problems”**, ASHRAE Rajasthan Chapter, Oct 2020
- Webinar on **“Acoustics basics for HVAC&R designers”**, ASHRAE Rajasthan Chapter, Oct 2020
- Webinar on **“Air terminals units and design application”**, ASHRAE, Oct 2020
- Webinar on **“Building integrated cooling systems for the hot and humid climate”**, IIT Madras, Oct 2020

- Webinar on “HVAC systems design for airborne infection control spaces in healthcare facilities”, ASHRAE Rajasthan Chapter, Oct 2020
 - Webinar on “Optimize Occupant Health, Building Energy Performance & Your Revenue through Indoor-Air Hydration”, ASHRAE Rajasthan Chapter, Oct 2020
 - Webinar on “Curbing hospital energy costs, heat-recovery chillers for healthcare”, ASHRAE Rajasthan Chapter, Sep 2020
 - Webinar on “High-performance building design-what the future holds for the direction for our industry”, ASHRAE Rajasthan Chapter, Sep 2020.
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TALKS AND PRESENTATIONS

- “HVAC Heat Load Calculation and CFD Simulations” Presented on 14th June 2024, Lecturer Series of Academic Interaction program of NSTL to Foster Academic Collaborations, DRDO-NSTL, Vishakhapatnam, India

PROFESSIONAL ACTIVITIES

- American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) member
 - Indian Society of Heating, Refrigerating, and Air Conditioning Engineers (ISHRAE) member
 - Reviewer for international journal of building engineering
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References

Dr. L.G. Kiran Kumar
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