



# KCG

COLLEGE OF TECHNOLOGY  
AFFILIATED TO ANNA UNIVERSITY | AUTONOMOUS

## FACULTY PROFILE



### RAMESH KRISHNAN L



Assistant Professor  
Department of Mechanical Engineering  
Contact: +91-9791585773

E.mail : [ramesh.mech@kcgcollege.com](mailto:ramesh.mech@kcgcollege.com), [vivifyramesh@gmail.com](mailto:vivifyramesh@gmail.com)

LinkedIn id: [linkedin.com/in/ramesh-krishnan-8079a92b](https://www.linkedin.com/in/ramesh-krishnan-8079a92b)

Orcid id: <https://orcid.org/0000-0001-5689-5921>

Google Scholar: <https://scholar.google.com/citations?user=2IqajEYAAAAAJ&hl=en&oi=ao>

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. (Pursuing) – Thermal Sciences (GPA: 8.5/10)** *July 2017 onwards*  
National Institute of Technology Calicut, Kozhikode, Kerala, India.
- M.E., in Refrigeration and Air Conditioning (GPA: 7.6/10)** *Sep 2012-May 2014*  
College of Engineering Guindy, Chennai, India.  
Anna University – Chennai.
- B.E., in Mechanical Engineering (Percentage: 72/100)** *July 2007-May 2010*  
FX Engineering College, Tirunelveli, Tamil Nadu.  
Anna University – Chennai.
- D.M.E., in Mechanical Engineering (Percentage: 85.5/100)** *June 2004-May 2007*  
Government Polytechnic College, Thoothukudi, Tamil Nadu.  
DOTE – Chennai.

---

## PROFESSIONAL APPOINTMENTS

- Assistant Professor**, Department of Mechanical Engineering, KCG College of Technology, Chennai-97 *Feb 2024 onwards*
- Teaching Assistant**, Department of Mechanical Engineering, National Institute of Technology Calicut, Kozhikode, Kerala, India. *July 2017 - Oct 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 – Oct 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 FLUENT /Structural
- Comsol Multiphysics
- HAP
- EnergyPlus
- Design Builder

### **3D & 2D Modeling Software**

- CREO
- AUTOCAD, RIVET (basics level)

### **Data Analysis Tool**

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

### **Optimization Techniques**

- Taguchi
  - Response surface methodology
-

---

## PUBLICATIONS

### RESEARCH ARTICLES IN PEER-REVIEWED JOURNALS

- **Ramesh Krishnan L, Imroz Ahmed, Gangadhara Kiran Kumar L, “Numerical Analysis of Distribution and Deposition Rate of Respiratory Droplets and Aerosol Particles in an Underfloor Air Conditioning Room, Sadhana – Under review**
- **Ramesh Krishnan L, Gangadhara Kiran Kumar L, “Numerical investigation of the indoor environmental factors with stratum and underfloor air distribution system in an educational institute computer laboratory” Journal of Thermal Science and Engineering Applications – ASME (Accepted – Yet to be published)**
- **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, CO<sub>2</sub> 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” 8<sup>th</sup> National and 2<sup>nd</sup> 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, CO<sub>2</sub> and particle trajectory in an office room model with two different air-conditioning system”** 26<sup>th</sup> National and 4<sup>th</sup> 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”**, 25<sup>th</sup> National and 3<sup>rd</sup> 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,”** 25<sup>th</sup> National and 3<sup>rd</sup> 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,”** 2<sup>nd</sup> 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”** 48<sup>th</sup> 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”** 46<sup>th</sup> 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 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 “CO<sub>2</sub> 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”**, PEDDA, 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”**, ISHRAE, 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.
- 

## TALKS AND PRESENTATIONS

- “**HVAC Heat Load Calculation and CFD Simulations**” Presented on 14<sup>th</sup> 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
- 

## References

### **Dr. L.G. Kiran Kumar**

Assistant Professor (SS),  
Mechanical Engineering Department,  
NIT Calicut.  
Kozhikode – 673601, India  
Contact No: +91-8281492914  
Email: [ganga@nitc.ac.in](mailto:ganga@nitc.ac.in)

### **Dr. Gurubalan Annadurai**

Assistant Professor,  
Department of Energy Science and  
Engineering,  
IIT Bombay,  
Mumbai 400076, India  
Contact No: +91-9943045617  
Email: [guru.a@iitb.ac.in](mailto:guru.a@iitb.ac.in)

### **Dr. T.J.S. Jothi**

Associate Professor,  
Mechanical Engineering Department,  
NIT Calicut.  
Kozhikode – 673601, India  
Contact No: +91-8893814713  
Email: [tjsjothi@nitc.ac.in](mailto:tjsjothi@nitc.ac.in)

### **Dr. B. Rohinikumar**

Associate Professor,  
Mechanical Engineering Department,  
NIT Calicut.  
Kozhikode – 673601, India  
Contact No: +91-8893814713  
Email: [rohinikumar@nitc.ac.in](mailto:rohinikumar@nitc.ac.in)

### **Dr. P. Balachander**

Assistant Professor,  
Department of Mechanical Engineering,  
College of Engineering Guindy Campus  
Anna University Chennai  
Chennai – 600025, India  
Contact No: +91-9444886323  
Email: [p\\_balachander@annauniv.edu](mailto:p_balachander@annauniv.edu)

---