

**NAME**

**Dr. Anish K. John**

**DESIGNATION**

**Assistant Professor, Mechanical Department**



**Contact Information**

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**Professional Qualifications**

<b>B-Tech</b>	Specialization	Mechanical (Automobile) Engineering
	Institute/ University	SCT College of Engineering, University of Kerala
	Year	1998-2002
<b>M-Tech</b>	Specialization	Industrial Refrigeration & Cryogenics
	Institute/ University	TKM College of Engineering, University of Kerala
	Year	2002-2004
<b>PhD</b>	Specialization	Mechanical Engineering - Thermal
	Institute/ University	College of Engineering Trivandrum, University of Kerala
	Year	2016

### Area/Research Interests

- Heat Transfer, Fluid mechanics and machinery, Thermal Science, Computational fluid dynamics, Heat Pipes, Cryogenics, Automobile Engineering, Materials, CAD, Automotive Mechatronics, Genetic Algorithm

### Professional Experience

- **Assistant Professor** Government Engineering College, Barton Hill, Trivandrum, Govt. of Kerala, 2017 – till date
- **Assistant Director** APJ Abdul Kalam Technological University (KTU) (On deputation), Govt. of Kerala, Thiruvananthapuram, 2016 –2017
- **Assistant Professor** College of Engineering Trivandrum (CET), Govt. of Kerala, Thiruvananthapuram, Kerala, India, 2015 –2016
- **Assistant Professor** Rajiv Gandhi Institute of Technology, (Govt. of Kerala), Kottayam, Kerala, India, 2014 – 2015
- **Assistant Professor** Sree Chitra Thirunal College of Engineering, Pappanamcode, Thiruvananthapuram, 2012 –2014
- **Assistant Engineer** The Kerala Agro Industries Corporation Ltd., Trivandrum, Kerala, 2011- 2013  
Other responsibilities: Kerala In Charge of Mechanized Labour Bank, Implemented Management Information System across all districts
- **Asst. Professor** John Cox Memorial CSI Institute of Technology, Trivandrum, Kerala, July 2010 – August 2011
- **Asst. Professor** P. A. Aziz College of Engineering & Technology, Trivandrum, Kerala, 2006 – 2010
- **Lecturer** Saintgits College of Engineering, Kottayam, Kerala, 2004 –2006

- **Graduate Engineer Trainee** Kerala Automobiles Limited (KAL), Thiruvananthapuram, 2002, R & D Wing

### **Responsibilities/Position (Department, College and University)**

- Government Engineering College, Barton Hill: PTA Secretary, Member of Interdisciplinary Research Committee,
- APJ Abdul Kalam Technological University: Admin for supercomputing facility for researchers, Kerala Nodal Officer for Spoken Tutorial Programme of Govt. of India, KTU Patent Officer
- Rajiv Gandhi Institute of Technology, Kottayam: Warden for all five student hostels, Coordinator of Student Attendance Monitoring Cell
- The Kerala Agro Industries Corporation Ltd.: Kerala In Charge of Mechanized Labour Bank, Implemented Management Information System across all districts

### **Publications (Journals/ International Conferences)**

#### **PUBLICATION DETAILS**

- 6 Journals including 2 SCI indexed
- 12 International Conferences
- 4 National Conferences
- 2 Book Chapters

#### • **INTERNATIONAL JOURNALS**

1. Performing multi-objective optimization on perforated plate matrix heat exchanger surfaces using genetic algorithm, Anish K. John and K. Krishnakumar, Simulation and Multidisciplinary Design Optimization (EDP sciences) 8, A3, 2017.
2. Effect of Perforation shape and Porosity on Effective Thermal Conductivity of Matrix Heat Exchanger Plates, Navaneet Krishnan, K. Krishnakumar and Anish K. John, Applied Thermal Engineering (Elsevier) 106, 432–437, 2016 (**SCI Indexed**).
3. Optimization of Perforated Plate Matrix Heat Exchanger Surfaces Using Taguchi and Analysis of Variance Method, Anish K. John and K. Krishnakumar, International Journal of Services and Operations Research (Inderscience), 24(2), 2016.
4. Transforming Kerala: Role of University in Building Entrepreneurship, Anish K. John, Abhilash Suryan, M. Abdul Rahman, Kuncheria P. Isaac, Journal of Engineering Education Transformations, Indo-US Collaboration for Engineering Education (IUCEE), 29(3), 118-123, 2016.
5. Numerical Method to Determine Effective Thermal Conductivity Of Perforated Plate Matrix Heat Exchanger Surfaces and its Experimental Validation, Anish K. John, K. Krishnakumar and Rathish T. R. International Journal of Scientific and Engineering Research, 5(5), 1079-1084, 2014.
6. A Review on Transient Test Techniques for Obtaining Heat Transfer Design Data of Compact Heat Exchanger Surfaces, K. Krishnakumar, Anish K. John and G. Venkatarathnam, Experimental Thermal and Fluid Science (Elsevier), 35 (4), 738-743, 2011 (**SCI Indexed**).

#### • **INTERNATIONAL CONFERENCES**

1. Optimization of Matrix Heat Exchanger Surfaces, Ashish B Nair, K Krishnakumar and Anish K John, 2nd Thermal and Fluids Engineering Conference (TFEC) and 4th International Workshop on Heat Transfer (IWHT), American Society of Thermal and Fluid Engineers, Nevada, USA, April 2017
2. Numerical Analysis on Helical Tube in Tube Heat Exchanger, Sunson Sunny, Anish K. John and K. Krishnakumar, 24th Annual Conference of the CFD Society of Canada, June 2016, Kelowna, Canada.
3. Leading Engineering Education of Kerala to Academic Autonomy, Anish K. John, Abhilash Suryan, V. Radhakrishnan, M. Abdul Rahman, Kuncheria P. Isaac, World Engineering Education Forum & Global Engineering Deans Council, Nov. 2016, COEX, South Korea
4. 3D Numerical Modeling And Experimental Investigation to Determine the Heat Transfer and Flow Friction of Perforated Plate Matrix Heat Exchanger, 6th International Symposium On Advances In Computational Heat Transfer, Rutgers University, USA, May 2015.
5. Experimental studies on perforated plate matrix heat exchanger with different plate thickness to perforation diameter ratio and spacer thickness to plate thickness ratio using modified maximum slope method, K Krishnakumar and Anish K John, 10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT 2014), July 2014, Orlando, Florida.
6. Determination of Effective Thermal Conductivity of Perforated Plates with Low Porosities used as Matrix Heat Exchanger Core Surfaces, Rathish T R , Krishnakumar K, Anish K. John, 2nd International Conference on Materials Mechanics and Management, Dec 2014, College of Engineering Trivandrum
7. Effect of Spacers on Perforated Plate Matrix Heat Exchanger Plate Surfaces, Vinodkumar VM, Krishnakumar K, Anish K. John, 2nd International Conference on Materials Mechanics and Management, Dec 2014, College of Engineering Trivandrum
8. Numerical and Experimental Investigation to Determine the Heat Transfer and Flow Friction of Porous Bodies, Anish K. John, K. Krishnakumar and Anjan R. Nair, 21st Annual Conference of the CFD Society of Canada, Sherbrooke, Quebec, May 6-9, 2013
9. Performance Evaluation of Perforated Plate Matrix Heat Exchanger with Various Perforation Geometry, Anish K. John and K. Krishnakumar, 13th UK Heat Transfer Conference, UKHTC2013, Imperial College London, September 2013
10. Determination of Heat Transfer and Flow Friction Characteristics of Perforated Plate Matrix Heat Exchanger Surfaces with Various Perforation Shapes, 4th International Joint Conference on Advances in Engineering and Technology (AET 2013), Elsevier, New Delhi, India, Dec 13-14, 2013
11. Performance Evaluation of Perforated Plate Matrix Heat Exchanger Plate Surfaces Using Modified Maximum Slope Method, Anish K. John and K. Krishnakumar, 22th National and 11th International ISHMT-ASME Heat and Mass Transfer Conference, IIT Kharagpur, India, December 28-31, 2013

12. Numerical Investigation of Convective Heat Transfer for Laminar Flow Overheated Blocks in a Baffled Channel, Rustum Usman and Anish K. John, 6th International Symposium on Multiphase Flow, Heat Mass Transfer and Energy Conversion, Xi'an, China, 2009

### **NATIONAL CONFERENCES**

1. Experimental investigation on briquetting of water hyacinth –a potential biofuel crop, Jayakrishnan B.V., Anish K. John, Baiju V, National Symposium on “Emerging Environmental Challenges: An Engineering Approach” (EEC 2018), BITS Pilani and CSIR-NEERI, Hyderabad, February, 2018
2. Performance Evaluation of Perforated Plate Matrix Heat Exchanger Plate Surfaces by Varying Porosity and Perforation Diameter, K Krishnakumar and Anish K John, 40th National Conference on Fluid Mechanics and Fluid Power (FMFP-2013), National Institute of Technology, Hamirpur, December, 2013
3. Experimentation on Perforated Plate Matrix Heat Exchanger with Different Plate Materials using Modified Maximum Slope Method, K Krishnakumar and Anish K John, 3rd National Conference on Refrigeration and Air Conditioning (NCRAC-2013), IIT Madras, Chennai, December 2013
4. Experimental Studies on Heat Pipe by John M. George and Anish K. John, Conf. Proc. of 18th National and 7th ISHMT-ASME Heat and Mass Transfer Conference, Jan 2006, IIT Guwahati.

### **BOOK PUBLISHED**

**Chapter 6:** RESEARCH DESIGN in book “**Research Methodology for Faculty**”  
Publisher: Centre for Education Growth and Research

ISBN No: 978-93-85000-90-4 (2016)

Authors: Dr. Kuncheria P Issac, Vice Chancellor, KTU

Dr. M Abdul Rahiman, Pro-Vice Chancellor, KTU

Dr. Ramesh U, AICTE Zonal Director

Dr. Anish K John, Assistant Director, KTU

**Chapter 24:** WRITING OF RESEARCH PROPOSALS FOR EXTERNAL/  
GOVERNMENT GRANTS in book “**Higher Education: Challenges and Opportunities**”

Publisher: Centre for Education Growth and Research

ISBN No: 978-93-86608-02-4 (2017)

Authors: Dr. M Abdul Rahiman, Pro-Vice Chancellor, KTU

Dr. Ramesh U, AICTE Zonal Director

Dr. Anish K John, Assistant Director, KTU

### Achievements/Awards

- Merit Award for Teachers, Mar Thoma Sabha Council

### Project/Consultancy

<b>CERD RSM Project funding: Cost Rs. 200000/-</b> Prototype Development and Performance Analysis of Reciprocating IC Engine with Axially Rotating Power Output Shaft M.Tech Project students: Abhilash K. & Harikrishnan A. V.	Project Funding - CERD
<b>Institution Project Funding: Cost Rs. 50000/-</b> Prototype Design and Development of a Disaster Management Terrain Vehicle in Disaster affected Zone B.Tech Project students: Danny Anil, Amal, Rasheed, Jibin, Rahul	Project Funding - GECBH
<b>An underwater recovery vehicle</b> Patent Application No: 201841007861 (India) Date of filing: March 2, 2018 Co-inventors: Abhinav Ajith, Reuben M Shibu, Ramesh M, Rahul Rajkumar	Provisional Patent Filed

### FDPs and Workshops attended

- **Organized 4 days workshop on** Modelling and Simulation for Automotive design, Govt. Engineering College Barton Hill, 29 Nov – 2 Dec, 2017
- Molecular Modelling for Engineers, College of Engineering, Trivandrum, 28 Nov – 3 Dec 2016
- Academic Leadership Programme for TEQIP Institutions, IIM Kozhikode, March 02-07, 2015
- Finite Element Analysis using ANSYS, RIT Kottayam, 5 days, 22-26 June 2015
- Engineering Optimization: Methods and Applications, RIT Kottayam, 18 – 21 July 2015
- **Organized 5 days workshop** on Computational Techniques for Engineering Analysis, RIT Kottayam, 05 – 09 Jan 2015
- Experimental Techniques in Fluid Dynamics, College of Engineering, Trivandrum, 1-5 Dec 2015
- Introduction to Fluid Power, Minnesota University (Online Course), 2015
- Cryogenic Air Separation, IIT Kharagpur, 21-27, Mar 2014
- Prevention of Fire in Oxygen Enriched Systems, IIT Kharagpur, 28-29, Mar 2014
- Research Avenues in Operations Management, RIT Kottayam, 7 days, 08 – 14 July 2014

- Research Methodology & Intellectual Property Rights, RIT Kottayam, 3 days, 12 -14 Feb 2014
- Computational Methods in Fluid Flow & Heat Transfer, Indian Institute of Space Technology, Trivandrum, 12 – 16 July 2010
- Effective Teaching & Learning Methodology, PAACET, 22-25 July 2008
- Finite Element Method using ANSYS, IIT Madras, 28 Aug – 01 Sept, 2007
- Finite Element Method using ANSYS, College of Engineering, Trivandrum, Aug 2007 (6 days).
- Quality Challenger in Technical Education, SCT CE, 30.06.2005
- Energy Management and Conservation, SCT CE, 29.06.2005
- Marine and Industrial Refrigeration at CIFNET, Kochi, 13 – 23 Oct 2003
- Migrating from Windows to Linux, CDIT, 27.12.2003