

# **MERVIN JOE THOMAS**

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Personal Profile	Energetic <i>Teacher</i> and <i>Researcher</i> with strong interpersonal and academic skills dedicated to providing a creative and informative learning environment. Competent and qualified college professional with a deep comprehension of handling continuous assessment and engaging in expanding teaching methodologies.
Academic	NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT (NIT-
Background	CALICUT), KERALA
	Doctor of Philosophy (PhD): Department of Mechanical Engineering, (July
	2017- August 2021)
	Full Time with MHRD fellowship: Department of Mechanical Engineering
	• The research focuses on designing, modelling, and controlling an intelligent parallel robotic manipulator for multipurpose applications.
	• PhD Dissertation Title: Development of a Six Degree of Freedom
	Parallel Manipulator for Contactless Applications
	• Place of Work: Robotics/Mechatronics Lab, Department of
	Mechanical Engineering, NIT Calicut
	• Guides: Dr M. L. Joy & Dr A. P. Sudheer
	NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT (NIT-
	CALICUT), KERALA
	Master of Technology (M.Tech): Department of Mechanical Engineering,
	Specialized in Machine Design (September 2015- May 2017)
	CGPA: 9.4
	• M-Tech in Machine Design covers advanced studies in Mechanics of
	Solids, Engineering Design, Analytical Computational Mechanics,
	Robotics, Tribology, Theory of Vibration, Finite Element Methods,
	Computer Graphics and Mathematical Methods in Engineering.
	• M. Tech Dissertation Title: Design, Fabrication, and Control of
	4PRR-2P Hybrid Robotic soft Material cutting system

- **Place of Work:** Robotics/Mechatronics Lab, Department of Mechanical Engineering, NIT Calicut
- Guides: Dr M. L. Joy & Dr A. P. Sudheer

# MAR ATHANASIUS COLLEGE OF ENGINEERING, KOTHAMANGALAM, KERALA

Bachelor of Technology (B.Tech), Department of Mechanical Engineering (September 2010- May 2014)

CGPA: 8.74 (Passed in First Class With Honours)

- **Project Title:** Computational flow analysis with experimental validation of an Internal Combustion Engine
- **Place of Work:** Combustions Engine Lab, Department of Mechanical Engineering, Mar Athanasius College of Engineering, Kothamangalam
- Guide: Prof. Biju Cherian Abraham

## SUMMARY OF QUALIFICATIONS

- PhD in Mechanical Engineering: NIT Calicut
- Master of Technology (M.Tech): Duration 2 years, University: NIT Calicut, Specialization: Machine Design, Department: Mechanical Engineering. CGPA: 9.4 (Second Rank)
- **Bachelor of Technology (B.Tech):** Duration 4 years, Specialization: Mechanical Engineering; University: Mahatma Gandhi University, Kottayam, Kerala, CGPA: 8.74
- Senior School Examination (12<sup>th</sup>): Central Board of Secondary Examination (CBSE), Percentage: 91.8 %
- Secondary School Exam (10<sup>th</sup>): Central Board of Secondary Examination (CBSE), Percentage: 86.7 %

# Experience NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL, INDIA

Assistant Professor, Department of Mechanical Engineering (October 2022 – Present)

- Guiding UG students in projects and robotics competitions
- Faculty in charge of Robotics Laboratory, NIT Karnataka
- Handling Robotics courses for UG and PG students

# INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD, KERALA, INDIA

### Post Doctoral Research Fellow, IIT Palakkad Technology Ihub Foundation (October 2022 – October 2023)

- Development of Exoskelton
- Conceptual design and prototyping of staircase climbing Robot
- Controller Design and Simulation studies
- Exposure to different domains of Robotics Soft Robots, AMR

Supervision of UG projects

## **RAJAGIRI SCHOOL OF ENGINEERING AND TECHNOLOGY, KERALA, INDIA**

#### Assistant Professor, Department of Mechanical Engineering (April 2021 – July 2022)

- Project Coordinator for UG students •
- Mentoring and class teachership •
- Subjects handled Introduction to Robotics, Design of Machine Elements, and Basic Mechanical Engineering

### List of Recent

**Publications** 

#### **International Journals**

- 1. M. Mathew, M. J. Thomas, M. G. Navaneeth, S. Sulaiman, A. N. Amudhan, and A. P. Sudheer, Industrial Robot: the International Journal of Robotics Research and Application, 2023, vol. 50, no. 3, pp. 432-455, https://doi.org/10.1108/IR-09-2022-0239
- 2. S. Shaju, T. George, J. K. Francis, M. Joseph, and M. J. Thomas, IAES International Journal of Robotics and Automation (IJRA), vol. 12, no. 1, pp. 29-40, 2023, http://doi.org/10.11591/ijra.v12i1.pp29-40, ISSN 2089-4856
- 3. J. K. Francis, T. T. Pullan, M. Joseph, M. J. Thomas, and K. Joseph, MaterialsToday Proceedings, vol. 72, no. 6, pp. 3111-3115, 2022, doi: https://doi.org/10.1016/j.matpr.2022.09.428, ISSN 2214-7853
- 4. M. J. Thomas, S. George, D. Sreedharan, M. L. Joy, and A. P. Sudheer, Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering, vol. 236, no. 2, pp. 270-293, 2022, https://doi.org/10.1177/09596518211032075
- 5. M. J. Thomas, V. Lal, A. K. Baby, M. Rabeeh VP, A. James, and A. K. Raj, Journal of Biomedical Informatics, vol. 117, pp. 1-22, 2021, doi: https://doi.org/10.1016/j.jbi.2021.103787, ISSN 1532-0480
- 6. M. J. Thomas, M. M. Sanjeev, A. P. Sudheer, and M.L. Joy, Industrial Robot: the International Journal of Robotics Research and Application, vol. 47, no. 5, pp. 683-695, 2020, https://doi.org/10.1108/IR-11-2019-0233
- 7. M. J. Thomas, M. L. Joy, and A. P. Sudheer, Chinese Journal of Mechanical Engineering, vol. 33, no. 13, pp. 1–17, 2020, https://doi.org/10.1186/s10033-020-0433-8
- 8. K. Sooraj Sukumar, M. J. Thomas, A. P. Sudheer, and M. L. Joy, International Journal of Innovative Technology and Exploring Engineering, vol. 8, no. 6, pp. 911–916, 2019, https://doi.org/10.35940/ijitee.F1186.0486S419, ISSN 2278-3075

#### **National Journals**

9. M. J. Thomas, K. S. Sukumar, A. P. Sudheer, and M. L. Joy, Journal of Structural Engineering (CSIR), vol. 48, no. 3, pp. 1–6, 2021, ISSN 0970-0137

#### **Book Chapters**

- 10. **M. J. Thomas**, Rekala Sai Bharani Kumar Goud, Nagamalla Jayaprakash, Santhakumar Mohan, *Smart Innovation, Systems and Technologies, Springer*, 2023, (ahead of print)
- M. J. Thomas, S. Mohan, V. Perevuznik, and L. Rybak, New Advances in Mechanisms, Transmissions and Applications, Springer, 2023, vol. 124, pp. 138–159, https://doi.org/10.1007/978-3-031-29815-8\_14
- A. Ram, I. Shaji, I. Allapatt, J. Varghese, John Paul, and M. J. Thomas, Mechanism and Machine Science. Lecture Notes in Mechanical Engineering, Springer, Singapore, 2023, vol. 520, https://doi.org/10.1007/978-981-19-5331-6\_50
- M. J. Thomas, M. Gaurav, A. P. Sudheer, and M. L. Joy, *Mechanism and Machine Science. Lecture Notes in Mechanical Engineering, Springer*, Singapore, 2021, pp. 639–655, doi: <u>https://doi.org/10.1007/978-981-15-4477-4\_46</u>

#### **International Conferences**

- 14. J. Peter, M. J. Thomas, and S. Mohan, *Advances In Robotics 6th International Conference of The Robotics Society*, 2023, vol. ahead of p, no. ahead of print, pp. 1–5, https://doi.org/10.1145/3610419.3610472.
- 15. J. Peter and M. J. Thomas, 2022 IEEE World Conference on Applied Intelligence and Computing, 2022, pp. 451-454, https://doi.org/10.1109/AIC55036.2022.9848857. (Received the Best Paper Award for the conference)
- 16. M. M. Sanjeev, M. J. Thomas, T. K. S. Kumar, A. P. Sudheer, and M. L. Joy, *IEEE Students Conference on Engineering & Systems*, 2020, pp. 1–6, doi: https://doi.org/10.1109/sces50439.2020.9236725.
- Invited Talks, Outreach programs, Professional Recognitions, Awards and Fellowships received and Review Skills
- Best paper presentation for Advances In Robotics 6th International Conference of The Robotics Society, 2023.
- Reviewer to SCI/SCIE/SCOPUS indexed journals (ASME Letters in Dynamic Systems and Control, IEEE/ASME Transactions on Mechatronics, Education and Information Technologies – Springer, IEEE Robotics and Automation Letters, Journal of the Brazilian Society of Mechanical Sciences and Engineering – Springer)
- Reviewer to international conferences (IEEE INDICON 2022, Kochi, Kerala; MeTrApp 2023, Poitiers, France)
- Evaluator for the Young Innovators Program (YIP 4.0) organized by Kerala Startup Mission in association with Kerala Development and Innovation Strategic Council (KDISC) (2023)
- Resource person for a 3 Day workshop on Robot Kinematics and Dynamics organized by IIT Palakkad Technology Ihub Foundation at Jai Shriram College of Engineering, Tirupur, Tamil Nadu (2023)
- Delivered a session to the students of Sai Krishna Public School, Thiruvananthapuram, an introductory session on Robotics and Artificial Intelligence (2023)

	• Delivered an interactive session with the research scholars of NIT Calicut on how to follow a systematic approach towards gaining the PhD degree
	(2023)
	• Best paper award IEEE World Conference on Applied Intelligence and Computing, 2022.
	• Resource person for the workshop " <i>REX 2.0</i> " organized by IEEE, RAS Chapter, Rajiv Gandhi Institute of Technology, Kottayam (2021)
	• Delivered a talk on the important aspects of the Robotics Regime at Rajagiri School of Engineering and Technology, Kakkanad, organized by the Mechanical Association (2021)
	<ul> <li>Faculty in charge of the activities related to the American Society of Mechanical Engineers (ASME) – Student Chapter at Rajagiri School of Engineering and Technology</li> </ul>
	<ul> <li>Chaired a session at the International Conference on Innovations in Mechanical Sciences (ICIMS 2021) organized by the Department of Mechanical Engineering, Adi Shankara Institute of Engineering and Technology, Kalady, Ernakulam</li> </ul>
	<ul> <li>Actively volunteered for the six-day Faculty Development Program, Robotics, Artificial Intelligence and Control (RAIAC 2020) at NIT Calicut.</li> <li>Active involvement in the newsletter publication from 2017 to 2021 for The Robotics Society – India Chapter (TRS)</li> </ul>
Recent Workshops/	• 6 <sup>th</sup> International and 21 <sup>st</sup> National Conference on Machines and
<b>Conferences/ FDPs</b>	Mechanisms (iNaCoMM 2023), December 2023, NIT Raipur
attended	• 6 <sup>th</sup> Conference on Mechanisms, Transmissions and Applications
	(MeTrApp 2023), May 2023, Poitiers, France
	• 6 <sup>th</sup> International Conference on Advances in Robotics (AIR 2023), July
	2023, IIT Ropar, Punjab (received the best paper award)
	<ul> <li>5<sup>th</sup> International Conference on Intelligent Manufacturing and Energy</li> </ul>
	Sustainability (ICIMES 2023), June 2023, Hyderabad
	<ul> <li>IEEE World Conference on Applied Intelligence and Computing (AIC), June 2022, Rajkiya Engineering College, Sonbhadra (received the best paper award)</li> </ul>
	• International Conference on Sustainable Materials, Manufacturing and
	Renewable Technologies (i-SMaRT 2022), FISAT Ernakulam
	• FDP on the theme "Inculcating Universal Human Values in Technical
	Education" organized by the All India Council for Technical Education (AICTE), July 2021
	<ul> <li>IEEE Students Conference on Engineering &amp; Systems (SCES), July 2020, MNIT Prayagaraj</li> </ul>
Declaration	<i>I hereby declare that all the information given above is true to the best of my</i>
	knowledge.

Mervin Joe Thomas 11-December-2023