

# CURRICULUM VITAE



Jibu Thomas

Professor in Biotechnology

Department of Biotechnology, School of Agriculture and Biosciences  
Karunya Institute of Technology and Sciences (Deemed to be University)  
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Highly motivated Biologist with Excellent administrative, interpersonal, analytical, team building, communication and presentation skills with clarity of thought, persistent hard work, sincerity and sound technical knowledge



## Education

<b>2014-2016</b>	PDF ( <b>Post Doctoral Fellowship</b> ) – University Grants Commission (UGC), New Delhi - Research Awardee Scheme
<b>2008</b>	<b>Ph.D.</b> in Plant Physiology) by Bharathiar University, Coimbatore, Tamil Nadu in June 2008 for the thesis entitled “Bio-markers’ to elucidate the desirable traits for quality and yield in tea ( <i>Camellia</i> spp.) germplasm”
<b>2002</b>	<b>M.Sc.</b> in Botany (83%) – <b>University First rank</b> - Jamal Mohamed College, Tiruchirapally affiliated to Bharathidasan University, Tamil Nadu
<b>2000</b>	<b>B.Sc.</b> in Botany (75%) – <b>Distinction</b> - Bishop Heber College, Tiruchirapally affiliated to Bharathidasan University, Tamil Nadu



## Research & Teaching Experience

<b>August 2002 - May 2010</b>	Research Scientist August 2002 till May 2010 – UPASI Tea Research Institute, Valparai
<b>June 2010 to May 2017</b>	Assistant Professor, Department of Biotechnology, KITS
<b>June 2017 to July 2021</b>	Associate Professor, Department of Biotechnology, KITS
<b>August 2021 – In service</b>	Professor, Department of Biotechnology, KITS

## Technical Qualifications

- PG Diploma in Computer Applications (PGDCA)
- PG Diploma in Bioinformatics (PGDIB)



## Project Grants received

Funding Agency	Title	Role	Budget outlay
National Tea Research Foundation (2016-19)	DNA barcoding of tea germplasm a novel technique to authenticate, protect property rights and to check adulterants and blends	Principal Investigator	14.53 Lakhs
Department of Biotechnology, Govt. of India (2013-16)	Gene targeting of microbial isolates to demonstrate potential plant growth promoting traits by third generation sequencing	Principal Investigator and Project Coordinator	28.80 Lakhs
Science and Engineering Research Board (SERB), Department of Science and Technology, Govt. of India (2013-16)	Phycoremediation a green technology initiative for effluents and there by production of high calorific biomass for biorefinery from microalgae using cost effective medium	Young Scientist and Principal Investigator <u>No. SERB/LS-981/2012</u>	18.80 lakhs
BESI-W2E/KU (funded by Biomass Energy System Incopr., USA) (2011-14)	Algae Biorefinery I: Factors Influencing Biomass Productivity in Microalgae	Project Coordinantor	22.0 Lakhs
UGC – Research Award (2014-16)	Expression profiling of gene transcripts by semi quantitative (RT-PCR) and documenting antioxidant enzymes during drought stress in cultivated species of Camellia sinensis	Project Investigator	22.95 Lakhs
United Board Hongkong (2015-16)	Documenting the green treasures for accreditation	Project Investigator	US\$ 5000



## Administrative Roles

- ✦ **Head of the Department** of Biotechnology since 2018
- ✦ **NAAC and NBA** coordination
- ✦ **Chairman** – Institutional Animal Ethical Committee (IAEC)
- ✦ **Member Secretary** – Institutional Human Ethical Committee (IEC)
- ✦ **Chairman** – Institutional Biosafety Committee (IBSC)
- ✦ GLP and ISO – 17025 – Trained to **Audit**
- ✦ **Administrative Coordinator** – Department of Extension and Continuing Education
- ✦ **Club Advisor and Coordinator** – Nature Club – Environment Unit – Extension Activities
- ✦ **Coordinator** – KEE Admissions, PG Admissions, MindKraft – University Technical Fest
- ✦ **Department Roles** – Campus Management System/mykarunya, International Student Exchange Programmes, Curriculum Design



## Prizes and Awards

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- ✦ Bharathidasan University **First rank and Gold Medal** in M.Sc. - 2002
- ✦ **Young Scientist Award** from **SERB- DST, Govt of India** in January 2013
- ✦ **UGC Research Awardee** – by UGC, Govt. of India in December 2013
- ✦ **Best Research Paper Award** in Biotechnologia 2019 – Committee of Biotechnology **Polish Academy of Sciences** and Professor Waclaw Szybalski Foundation, Poland – **Cash Award PLN 5000**
- ✦ **Dr.C.S. Venkata Ram memorial prize** for best paper presentation at annual colloquium held at UPASI TRI 2004 to 2007
- ✦ **Dr.C.S. Venkata Ram memorial Award** for best original research paper well presented in PLACROSYM XVIII held at National Research Centre for Cashew (NRCC), Puttur during December 2008.
- ✦ **Best Faculty Award** – by Nehru Group of Institutions, Coimbatore in December 2015
- ✦ **Achievers Award** – Karunya Institute of Technology and Sciences in 2013, 2015,2016



## Patents Filed & Published

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1. **Aerobic Pre-fermenter** (2017) Patent No. 201741006585 dt. 24.02.2017 . Jibu Thomas, Suresh Kumar P and Vinolia S (**Granted**)
2. Indian patent on A Novel Composition for **controlling pathogen** in maize Dr. Jibu Thomas, Mrs. Reena Josephine No. 202041014007 Dated 30.03.2020
3. **An insect repellent composition** from micro-algae and the process for the preparation thereof Dr. Jibu Thomas, Mr. Dharshan Balachandran No. 202041014485 Dated 31.03.2020
4. Kavid – Karunya **Disinfection Chamber** Dr. Jibu Thomas, Dr. S. Jacob K. Annamalai, Dr. Muthukumar Nadar, Dr. T. Jesse Joel, Mr.S. Robert No. 20241020677 Dated 15.05.2020
5. A Novel **Herbal Disinfecting Composition** and Dispensing Device thereof Dr. Jibu Thomas and team No. 202141014723 dated 29.03.2021



## Service Excellence

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- Obtained **NBA accreditation** for B.Tech and M.Tech in Biotechnology
- Faced **NAAC and AICTE** teams towards accreditation processes



## Membership in Scientific Bodies

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- Life Member, Indian Society of Plantation Crops
- Association of Microbiologist of India

- Association of Interdisciplinary Research in Science and Technology
- National Society for Ethanopharmacology



## Publications

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1. Joy A. Unnikrishnan G. Megha M. Haris M. Jibu Thomas, Kolanthai E. Muthuswamy S. Muthuswamy S. (2022). Polycaprolactone/Graphene Oxide–Silver Nanocomposite: A Multifunctional Agent for Biomedical Applications. *Journal of Inorganic and Organometallic Polymers and Materials* Volume 32, Issue 3, Pages 912 - 930 March (DOI - 10.1007/s10904-021-02180-1)
2. Avarave S. and Jibu Thomas (2022) A Miniprep DNA Verifiable Method from Denatured Samples for DNA Barcoding and Sequencing Applications. *Proceedings of the National Academy of Sciences India Section B - Biological Sciences* . (DOI- 10.1007/s40011-021-01334-y)
3. Reena Josephine C.M. and Jibu Thomas (2021). Rhizosphere competent pseudomonas indoloxydans (F3-47) as a plant growth promoter and enhancer of zea mays l. under greenhouse and field trials. *Current Trends in Biotechnology and Pharmacy Open Access* Volume 15, Issue 5, Pages 411 - 4181. (DOI - 10.5530/ctbp.2021.3s.34)
4. Avarave S. and Jibu Thomas (2021) Biodiversity of South Indian tea clones with detection of plant-based adulterants in tea dust using DNA barcoding. *Natural Product Research*. (DOI - 10.1080/14786419.2021.2002325)
5. Steffi Avarave, Jibu Thomas, Vijayaraj Radha & Kareem Altaff (2021) Synergistic protective effect of *Camellia sinensis* leaf buds and *Camellia sinensis* flowers against Cisplatin-induced nephrotoxicity in rats and characterization of its bioactive compounds. *Natural Product Research*. DOI: 10.1080/14786419.2021.1984469
6. Darshan balachandran and Jibu Thomas (2021) Electrophoretic Recovery of Microalgae Biomass of Straine *Graesiella emersonii* and Its Cell Analysis Post Treatment to Ensure Viable Culture Maintenance. *International Journal on Algae* Volume 23, 2021 Issue 3 pages 269-280
7. Jacob, A., Mahanty, B., Thomas, J. (2020) Dynamic modelling of growth and flavonoid production from *Ocimum tenuiflorum* suspension culture *Bioprocess and Biosystems Engineering*, 43(11), pp. 2053–2064.
8. Sureshkumar, P., Jibu Thomas, (2020) Exploring the distinctiveness of biomass and biomolecules from limnic microalgae of unexplored waters of Noyyal River, Western Ghats, for exploitation. *Environmental Science and Pollution Research*, 27(18), pp. 23309–23322.
9. Jibu Thomas, , Joseph, D., Sureshkumar, P. (2020) Stress induced production of high-value organic compounds from freshwater microalgae. *International Journal on Algae*, 22(3), pp. 287–299.
10. Suresh Kumar, P, Jibu Thomas, (2019) Seasonal distribution and population dynamics of limnic microalgae and their association with physico-chemical parameters of river Noyyal through multivariate statistical analysis. *Scientific Reports*, 9(1), 15021.
11. Anu Jacob & Jibu Thomas 2019. Flavonoids from cell suspension culture of *Ocimum tenuiflorum* and its enhancement using response surface methodology. *Drug Invention Today* 11: 9(469-479)
12. Reena Josephine & **Jibu Thomas** 2019. 16S microbial phylogeny of multifunctional plant-growth-promoting rhizobacteria from the rhizosphere of maize (*Zea mays* L.) for agricultural soil fortification. *BioTechnologia* vol. 100 (2) C pp. 143–154 (DOI: <https://doi.org/10.5114/bta.2019.85324>)
13. Pandian Sureshkumar & **Jibu Thomas** 2019. Integrated Study on Nutrients and Heavy Metals Removal from Domestic Wastewater using Free and Immobilized *Scenedesmus rubescens* (Chlorophyta, Chlorophyceae) *International Journal on Algae*, 21(1): 83–96
14. Shilpa G.S. and Jibu Thomas 2019. Screening Growth Promoting Traits in Maize Using Native Rhizobacteria through Multiple Approaches. *Journal of Pure and Applied Microbiology* 5444 Pages: 355-360 (DOI: <http://dx.doi.org/10.22207/JPAM.13.1.39> )
15. Pandian Sureshkumar & **Jibu Thomas** (2019) Strategic growth of limnic green microalgae with phytoremediation potential for enhanced production of biomass and biomolecules for sustainable environment. *Environmental Science and Pollution Research* 2019 (1) January
16. Anu Jacob & **Jibu Thomas** 2019 Therapeutic potential of dietary flavonoids against viral-borne infections: A review. *Drug Invention Today* 11: 2 (469-479)

17. Subha Mary Varghese and **Jibu Thomas** (2019) Polyphenolic constituents in mulberry leaf extract (*m.latifolia* l.cv.bc259) and its antidiabetic effect in streptozotocin induced diabetic rats. Pak. J. Pharm. Sci., Vol.32, No.1, 2019, pp.069-074
18. Jimcy James and **Jibu Thomas** (2019) Anticancer Activity of Microalgae Extract on Human Cancer Cell Line (MG-63). Asian Journal of Pharmaceutical and Clinical Research, Vol 12, Issue 1, 2019 139-142
19. Jibu Thomas and C.M. Reena Josephine (2018) Discrimination of plant beneficial rhizosphere microbes by Amplified Ribosomal DNA Restriction (ARDRA) for molecular taxonomy. Research Journal of Biotechnology. 13(3) 19 -24
20. Suresh Kumar, P., Jibu Thomas\* and Poornima V. (2018) Structural insights on bioremediation of polycyclic aromatic hydrocarbons using microalgae: a modelling-based computational study. Environmental Monitoring and Assessment. 190: 92 Impact factor - 1.687
21. Suresh Kumar, P., Jibu Thomas\* and SivaSubramanian, J. (2017) Rapid method for simultaneous discrimination of microalgae and determination on biochemical composition based on vibrational spectroscopy, International Journal on Algae. 19 (4) (2017) 385 -396
22. Reena Josephine CM and Jibu Thomas. 2017. Harnessing the potential of Pantoea sp. F4-12 as a plant growth promoter and antagonism towards *Fusarium moniliforme*. International Journal of ChemTech Research, 2017, 10(4)380 – 385
23. Subha Mary Varghese and Jibu Thomas. 2017. Morus Latifolia (BC2 - 59) Leaf extract against oxidative stress in Streptozotocin induced diabetes rat models. International Journal of Pharma and BioSciences 2017, 8(1); 254 -259.
24. Subha Mary Varghese and Jibu Thomas. 2016. Quantitative Determination of Biochemical Constituents and Evaluation of Antioxidant Potential of Different Cultivars of Mulberry Species. Indian Journal of Natural Sciences 2016.7(39) 11834
25. Jibu Thomas and E.V. Jayachithra.2015. Growth kinetics of *Chlorococcumhumicola* – A potential feedstock for biomass with biofuel properties. *Ecotoxicology and Environmental Safety*, 121: 258-262DOI: [10.1016/j.ecoenv.2015.03.008](https://doi.org/10.1016/j.ecoenv.2015.03.008)
26. Jibu Thomas and Gavin Thomas. (2013). Effect of catechin rich green tea (*Camellia sinensis*) extracts on obesity triggered hepatic steatosis in rats fed with HFCS . *International journal of pharma and bio sciences* 4(4): (p) 525 – 532
27. DeepuViJayan, Jibu Thomas, K.M. Maria John, P.K. Pius and N. Muraleedharan., 2013. Characterization of selected south Indian tea (*Camellia* spp.) germplasm using morphological traits and RAPD markers. *Keanean Journal of Science*. vol(2), 45-52.
28. Amarchand Chordia Murugan, Jibu Thomas, Raj Kumar Rajagopal and AbulKalamAzad Mandal, 2012. Metabolic Responses of Tea (*Camellia* sp.) to Exogenous Application of Ascorbic Acid. *J. Crop Sci. Biotech.* 2012 15 (1): 53 - 57. <http://dx.doi.org/10.1007/s12892-012-0001-6>
29. Thomas, J., Varghese, S. M and Edgar Joshua, J, 2012.Antibiabetic and antihyperlipidemic activity of the extracts of the seeds of Glycine max (L) in streptozotocin induced diabetic mice. *Drug Invention Today* .Volume 4, Issue 12, 2012, Pages 677-680.
30. Jibu Thomas and Nithya S, 2011.Biosynthesis of Silver Nanoparticles using *Moringaoleifera*and its Characterization for Commercial Exploitation - *International Journal of Nanotechnology and Applications*. Volume 5, Number 3 (2011), pp. 273-279. (IBI Factor-3.2). <http://www.ripublication.com/Volume/ijnav5n3spl.htm>.
31. Ashu Gulati, SubramaniRajkumar, Subramanian Karthigeyan, Rakesh K. Sud, DeepuVijayan, Jibu Thomas, Rajagopal Raj Kumar, Suresh C. Das, PradipTamuly, Mridul Hazarika and Paramvir S. Ahuja. 2009. Catechin and catechin fractions as biochemical markers to study the diversity of Indian tea (*Camellia sinensis* (L.) O. Kuntze) germplasm. *Chemistry and Biodiversity* 6:1042-1052.doi: [10.1002/cbdv.200800122](https://doi.org/10.1002/cbdv.200800122)
32. Jibu Thomas, D. Ajay, R. Raj Kumar and AKA Mandal. 2009. Influence of beneficial microorganisms during in vivo hardening of in vitro derived tea (*Camellia sinensis*) plants. *Plant Cell Tissue and Organ Culture*. (DOI [10.1007/s11240-010-9687-7](https://doi.org/10.1007/s11240-010-9687-7)) 101(3): 365-370.
33. Maria J Muthiah, Jibu Thomas, R. Raj Kumar and AKA Mandal. 2009. Studies on radical scavenging activity of tea leaves and effect of additives on activities of black tea liquor. *International Journal of Food Science and Technology*. 44(10): 2070–2074.Doi: [10.1111/j.1365-2621.2009.02033.x](https://doi.org/10.1111/j.1365-2621.2009.02033.x)
34. Jibu Thomas, AKA Mandal, R. Raj Kumar and Amarch and Chordia. 2009. Role of biologically active amino acid formulations on quality and crop productivity of tea (*Camellia* sp.). *International Journal of Agricultural Research*. 4: 228-236. DOI: [10.3923/ijar.2009.228.236](https://doi.org/10.3923/ijar.2009.228.236)
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- based genetic diversity assessment of commercially important tea germplasm in India. *Biochemical Genetics*.48: 549-564. DOI: [10.1007/s10528-010-9338-z](https://doi.org/10.1007/s10528-010-9338-z)
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  37. Jibu Thomas, Raj Kumar, R. and Mandal, A.K.A. 2006. Metabolite profiling and characterisation of Somaclonal variants in tea (*Camellia* spp.) for identifying productive and quality accession. *Phytochemistry*67: 1136-1142. DOI: [10.1016/j.phytochem.2006.03.020](https://doi.org/10.1016/j.phytochem.2006.03.020)
  38. Jibu Thomas, Saravanan, M., Raj Kumar, R., and Pius, P.K 2005. Influences of age after pruning on the levels of flavanoids and other bioconstituents in tea (*Camellia sinensis*). *Journal of the Science of Food and Agriculture*85:931-934. DOI: [10.1002/jsfa.1985](https://doi.org/10.1002/jsfa.1985)
  39. Jibu Thomas, DeepuVijayan, Sarvottam D. Joshi, Joseph Lopez, S and Raj Kumar, R. 2005. Genetic integrity of somaclonal variants in tea (*Camellia sinensis* (L.) O Kuntze) as revealed by inter simple sequence repeats. *Journal of Biotechnology* 123: 149-154. DOI: [10.1016/j.jbiotec.2005.11.005](https://doi.org/10.1016/j.jbiotec.2005.11.005)
  40. Joseph Lopez, S., Jibu Thomas, Pius, P.K., Raj Kumar, R. and Muraleedharan, N. 2005. A reliable technique to identify superior quality clones from tea germplasm. *Food Chemistry*91(4): 771-778. DOI: [10.1016/j.foodchem.2004.10.005](https://doi.org/10.1016/j.foodchem.2004.10.005)
  41. Jeyaramraja, P.R., Raj Kumar, R., Pius, P.K. and Jibu Thomas. 2003. Photoassimilatory and photorespiratorybehaviour of certain drought tolerant and susceptible tea clones. *Photosynthetica*41: 579-582. DOI: [10.1023/B:PHOT.0000027523.51145.a0](https://doi.org/10.1023/B:PHOT.0000027523.51145.a0)

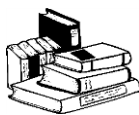
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1. **Jibu Thomas**, Raj Kumar, R. and Pius, P.K. 2004. Screening of tea germplasm under soil moisture stress for productivity. *Journal of Plantation Crops* **32** (suppl.): 50-53.
2. Raj Kumar, R. and **Jibu Thomas**. 2004. Physiological basis of cultivar characterisation in tea (*Camellia* spp.). *Journal of Plantation Crops* **32** (suppl.): 54-57.
3. Sarvottam D. Joshi, Vinod Haridas, **Jibu Thomas**, Rahul, P.R. and Raj Kumar, R. 2004. Isolation of spores of *Exobasidium vexans* of tea and extraction of genomic DNA. *Journal of Plantation Crops* **32** (suppl.): 351-353.
4. **Jibu Thomas**, Raj Kumar, R. and Muraleedharan, N. 2005. Absorption efficiency of tea plants in relation to soil applied phosphorus by placement and broadcast methods. *Journal of Plantation Crops* **33**(3): 171-174.
5. Raj Kumar, R. and **Jibu Thomas**. 2005. Dry matter partitioning in relation to physiological attributes in tea. *Journal of Plantation Crops* **33**(3): 165-170.
6. Mandal, A.K.A., Raj Kumar, R. and **Jibu Thomas**. 2007. An overview of PGR trials in UPASI TRF. *Planters' Chronicle* **103**(11):12-16.
7. **Jibu Thomas**, Raj Kumar, R. And Mandal A.K.A 2008. Diversity among various forms of flavanols in the selected UPASI tea germplasm. *Journal of Plantation Crops* **36**(3): 31-34
8. **Jibu Thomas** and Raj Kumar R., 2008. Metabolite profiling of tea germplasm based on quality and yield. Proceedings of Kerala Science Congress. Pp 565-567 eds. Yesodharan E.P., Kerala state council for science, technology and environment, Government of Kerala, India.
9. **Jibu Thomas** and R. Raj Kumar, 2011. Impact of continuous shear harvesting on photoassimilate compartmentalisation in mature tea - *Journal of Plantation Crops (ISSN: 0304-5242), 2011, 39 (1): 228-231*
10. **Jibu Thomas** and R. Raj Kumar, 2011. DNA loci based characterization of tea germplasm for screening accessions with quality traits - *Journal of Plantation Crops (ISSN: 0304-5242), 2011, 39 (1): 216-219*
11. Jibu Thomas, R. Raj Kumar, A.K.A. Mandal, and N. Muraleedharan (2013). Impact of continuous mechanical harvesting on leaf leatheriness and possible alleviation measures. *Journal of Plantation Crops*, 41(2): 196-201
12. Noopur Khare, **Jibu Thomas** 2014. Docking Studies on Breast Cancer Genes (BRCA1) with Tea Components. *International Journal of Engineering and Technical Research (Special Issue )* 189-192



1. Jibu Thomas and Pandian Sureshkumar (2020) *Algae: CO<sub>2</sub> Sequestration and Biorefinery - Recent Trends In Biotechnology Applied Algal Biotechnology*, Nova Science Publishers, Newyork, International. ISBN 978-1-53617-524-0
2. Jibu Thomas and Darshan B (2020) *Genomic modification of horticulture crops using CRISPR CAS technology in Innovative Techniques for Horticulture Developments*, Brillion Publishing ISBN: 9789389350449
3. Reena Josephine C.M and Jibu Thomas. 2018 *Isolation and Purification Of Genomic Dna From Bacteria*. In: *DNA to Phylogeny – A practical guide* (Ed: Jibu Thomas) Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-68-6. Pg. 1 – 5.
4. Steffi Avarave and Jibu Thomas 2018. *Plant Genomic Dna Extraction Using CTAB – A Modified Method*. In: *DNA to Phylogeny – A practical guide* (Ed: Jibu Thomas) Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-68-6. Pg. 6 – 10.
5. Sureshkumar Pandian and Jibu Thomas. 2018 *Polymerase Chain Reaction*. In: *DNA to Phylogeny – A practical guide* (Ed: Jibu Thomas) Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-68-6. Pg. 11 – 28.
6. Sureshkumar Pandian and Jibu Thomas. 2018 *Primer Designing*. In: *DNA to Phylogeny – A practical guide* (Ed: Jibu Thomas) Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-68-6. Pg. 29 -36.
7. Sureshkumar Pandian and Jibu Thomas. 2018 *Sequencing Technology*. In: *DNA to Phylogeny – A practical guide* (Ed: Jibu Thomas) Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-68-6. Pg. 37 - 42.
8. Reena Josephine C.M and Jibu Thomas. 2018 *Tools In DNA Sequence Analysis*. In: *DNA to Phylogeny – A practical guide* (Ed: Jibu Thomas) Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-68-6. Pg. 43 -53.
9. Sureshkumar Pandian and Jibu Thomas. 2018 *DNA Sequence Editing and Analysis*. In: *DNA to Phylogeny – A practical guide* (Ed: Jibu Thomas) Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-68-6. Pg. 54 - 60.
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11. Sureshkumar Pandian and Jibu Thomas. 2018 *Multiple Sequence Alignment and Phylogenetics*. In: *DNA to Phylogeny – A practical guide* (Ed: Jibu Thomas) Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-68-6. Pg. 67 -71.
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13. Steffi Avarave and Jibu Thomas 2017 “*A critical review on adulterants in tea and its identification*” In: *Sequestering Biological Technology*. (Editors: P. Muthusamy, G. Gnanavel and C. Vani). Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-67-9. Pg. 1 – 6.
14. Suresh Kumar Pandian and Jibu Thomas 2017 “*Review on progress and prospects of microalgae in simultaneous wastewater treatment and biofuel production*” In: *Sequestering Biological Technology*. (Editors: P. Muthusamy, G. Gnanavel and C. Vani). Sri Sakthi Promotional Litho Process, Coimbatore. ISBN:978-81-92330-67-9. Pg. 212 – 222
15. Reena Josephine C.M and Jibu Thomas 2015 “*Deciphering the molecular mechanisms involved in plant growth promotion by PGPR*”. In: *Sustainable technologies in healthcare and environment*. (Editors: Jibu Thomas, R.T. Narendhirakannan, M. Raja, S. Kavitha, ReyaIssac, Jesse Joel, Levin Anbu Gomez and Anu Jacob). Sri Sakthi Promotional Litho Process, Coimbatore. ISBN: 978-81-90387-10-1. Pg. No.93-98.
16. Anu Jacob and Jibu Thomas 2015. “*Bioprocess considerations in large scale plant cell culture*” In: *Enabling Technologies for Health and Human Betterment*. (Editor S. Kallidass) Sams publishers Chennai. ISBN : 9789380485751. Pg. 1 – 6
17. Reena Josephine CM and Jibu Thomas 2015. “*1 – Aminocyclopropane – 1- carboxylate (ACC) Deaminase - a potential trait in rhizobacteria towards enhancing the productivity in crop plants for sustainable agriculture*” In: *Enabling Technologies for Health and Human Betterment*. (Editor S. Kallidass) Sams publishers Chennai. ISBN : 9789380485751. Pg. 89 – 94

18. Pandian Suresh Kumar and Jibu Thomas 2015 “Harvesting- a key strategy for sustainable microalgae biorefinery production”.In: Sustainable technologies in healthcare and environment.(Editors: Jibu Thomas, R.T. Narendhirakannan, M. Raja, S. Kavitha, Reyalssac, Jesse Joel, Levin Anbu Gomez and Anu Jacob). Sri Sakthi Promotional Litho Process, Coimbatore. ISBN: 978-81-90387-10-1. Pg, No. 122-134.
19. Ratna Padmini JeslinaK..J and Jibu Thomas 2015 “Molecular responses of tea to drought stress”. In: Sustainable technologies in healthcare and environment.In: Sustainable technologies in healthcare and environment. (Editors: Jibu Thomas, R.T. Narendhirakannan, M. Raja, S. Kavitha, Reyalssac, Jesse Joel, Levin Anbu Gomez and Anu Jacob). Sri Sakthi Promotional Litho Process, Coimbatore. ISBN: 978-81-90387-10-1. Pg, No.76-81.
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30. Jibu Thomas 2011.“Bio-Prospecting of Tea(*Camellia* Spp.) for its Phytochemicals as Antioxidants in Alleviating Oxidative Stress Responses”.In:Oxidative Stress And its Complications In Human Health. (Editor: Dr.R.T.Narendhirakannan). Excel India Publishers New Delhi.ISBN: 978-93-80697-53-6. . Pg.No.206-208

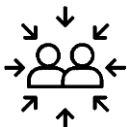


### Books Edited

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2. New Horizons in Biotechnology – Iris Publishers, 2012 ISBN: 93-80543-15-8



3. Experimental Animals Ethical Guidelines and Bioefficacy Studies for Biotechnological Applications – Iris Publishers, 2014 - ISBN: 93-80543-19-0
4. Sustainable Technologies in Healthcare and Environment – Sri Sakthi Publishers, 2015 – ISBN No. 978-81-90387-10-1
5. DNA to Phylogeny – A Pratical guide – Sri Sakthi Promotional Litho Process, 2018



## Conferences

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- ✚ International Pl antation Crops Symposium (PLACROSYM XVI) – December 2004
  - ✚ National Symposium on Frontier in Biotechnology (NSFB) – 2006
  - ✚ National symposium on Computational biology – 2008
  - ✚ International Plantation Crops Symposium (PLACROSYM XVIII) – December 2008
  - ✚ Kerala Science Congress (KSC) – 2009
  - ✚ Presented a paper on “Drought induced oxidative stress response and expression of flavanol synthesizing genes in young plants of *Camellia sinensis*” International conference on New Horizons in Biotechnology, National Institute for Interdisciplinary Science and Technology November 2011
  - ✚ International Regional Science Meet on Land cover and Land use change dynamics and impacts in South Asia (2013)
  - ✚ Delivered a lecture on “Green fuels from Microalgae” TEQIP II sponsored FDP on Green energy PSG college of Technology - November 2013
  - ✚ Presented a paper on “Isolation and Phenotypic characterization of rhizospheric and endophytic microbes from maize fields for multi PGPR” National conference on recent developments in Microbiology, Biochemistry and Biotechnology PSG College of Arts and Science - November 2013
  - ✚ Presented a paper on “Evenness and richness in the microbial diversity of rhizosphere soil from various agricultural fields” National conference on Empowering Mankind with Microbial Technologies - Association of Microbiologist of India, TNAU, November 2014
  - ✚ Presented a paper on “Growth kinetics of *C. humicola* – feed stock for biofuel properties” International Conference on Green Technology for Environmental pollution prevention and control National Institute of Technology, Trichy - September 2014
  - ✚ Presented a paper on “Metabolite composition of selected species of algae to position them as potential stocks for new generation biofuels” National Conference on Biofuels and Bioenergy, University of Petroleum and energy studies, Dehradun -June 2015
  - ✚ Presented a paper on “DNA barcodes of the cultivated regional collections of mulberry germplasm and its phylogeny for taxonomical positioning”, National Symposium on Bioresources and Sustainable development & 2nd National Bioresource and Sustainable development Summit North Eastern Hill University Shillong - October 2015
  - ✚ Presented a paper on “Identification of plant growth promoting rhizobacteria by third generation sequencing” 5<sup>th</sup> International Science Congress, Nepal - December 2015
  - ✚ Presented a paper on “Immobilized microalgae for Phycoremedaiton of waste water” Frontiers in Genetics and Genomics, Central University of Kerala - April 2016
  - ✚ Presented a paper on “Nano formulations of silver for agriculture applications”, Fourth International Conference on Nano medicine and Tissue Engineering Mahatma Gandhi Univeristy, Kottayam - August 2016
  - ✚ Presented a paper on “Field application of microalgae as immobilized beads for wastewater treatment as cost effective means” International Conference on Microalgal and Cyanobacterial Biotechnology (MACB 2016) - August 2016
  - ✚ Presented a Paper on “Drought induced molecular changes in clonal tea (*Camellia sinensis*) evidenced by gene expression using transcriptomic approach” International conference on Interdisciplinary Research Innovations in Computer science, Bioscience and Electronics at Kuala Lumpur, Malaysia November 2016
  - ✚ International Conference on Interdisciplinary approaches in Science and Technology organised by International Association of Interdisciplinary Research in Science and Technology at Pattaya, Thailand (2017)
  - ✚ International Conference on Biosciences and BioInformatics at Barathiyar University (2017)

- ✦ Presented Paper on “Pharmacological effects of green tea catechins on Obesity induced metabolic disorder“ International conference on Herbal and natural components as the future Pharmacology - Avinashilingam Institute for Home Sciences and Higher Education for Women - March 2017
- ✦ International Conference on Emerging Synergies in Agriculture, Food Processing Engineering and Biotechnology (ICAFB - 2018)
- ✦ International Conference on Interdisciplinary approaches in Science and Technology organised by International Association of Interdisciplinary Research in Science and Technology at Srilanka (2018)
- ✦ International Conference on Interdisciplinary approaches in Science and Technology organised by International Association of Interdisciplinary Research in Science and Technology at Singapore (2019)
- ✦ International Conference on Impact of Innovations in Science and Technology for Societal Development (IISTSD-2019), Coimbatore
- ✦ Guest Lecture on Challenges and Innovations in Science and Technology for a Better Tomorrow - P.A. College of Engineering and Technology, Pollachi – 2020
- ✦ Research Methodology Course - Manuscript / Thesis Writing / Report Presentation for Research Scholars of KITS – 2020
- ✦ COURSERA - Introduction to Algae 4 week certificate Programme – May 2020
- ✦ COURSERA - Big Data, Artificial Intelligence, and Ethics 4 week certificate Programme – May 2020
- ✦ Guest Lecture on Ideation and Innovations for a challenging tomorrow for Department of Marine Biotechnology, AMET University, Chennai July 2020
- ✦ Attended Science Academies - Science leadership Workshop organized by Central University of Punjab, June 2020
- ✦ Key Note Lecture on Plant Polyphenols - Properties and applications, International symposium on Sustainable solutions with innovation and research on natural products, September 2020
- ✦ Participated in Webinar on Drone Remote Sensing in Agriculture by Indian Society of Agrophysics and ICAR, September 2020
- ✦ Participated in Science Academies Lecture Workshop on “Genomics and the Fight against Infectious Diseases” Organised by Hindustan College of Arts and Science, Coimbatore – Online, November 2020
- ✦ Participated and Completed ATAL FDP on “Synthetic Biology” Online by AICTE December 2020
- ✦ Participated and Completed ATAL FDP on “Personal and Professional Excellence” Online by AICTE December 2020
- ✦ Online Webinar organized by National Museum of Natural History, Ministry of Environment, Forest and Climate Change, New Delhi “Importance of wetlands including the coastal wetlands for mankind” 2020
- ✦ Guest Lecture on Good laboratory Practices - CMS College of Science and Commerce DBT - Star College Scheme supported Orientation programme on GLP 2020



## Trainings

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- ✦ Separation of biomolecules at Central Food Technological Research Institute (CFTRI), Mysore
  - ✦ Training on HPLC and GC and its applications organized by American Institute of Chemists at Central Leather Research Institute, Chennai
  - ✦ Seminar on “Column chemistry of HPLC and GC” organized by Waters, Bangalore
  - ✦ Training on Safety handling of radio isotopes by Board of Radiation and Isotope Technology (BRIT), Baba Atomic Research Centre (BARC), Mumbai
  - ✦ Training on Electrophoresis at Biotech, Electrophoresis Institute, Yercaud
  - ✦ Trained on OECD principles of Good Laboratory Practices (GLP)
  - ✦ Trained in laboratory management and internal audit as per ISO/IEC 17025:2005
  - ✦ Training on Biostatistics
  - ✦ Freshwater Phycology by Gubbi Labs
  - ✦ Microbial Phylogenetics and Proteomics by Alagappa University
  - ✦ Green and sustainable technologies at TERI, Delhi
  - ✦ ICGEB training on Algal Omics - 2019

- ✦ ICMR Training on Roles and Responsibilities of Ethics Committee members - 2020
- ✦ Hands on Training Program on DNA sequencing (DST PURSE Funded Program) – Bharathiar University - 2020



## Technical Expertise

- ✦ Algae biomass development, optimization of growth and biofuels
- ✦ Plant microbe interactions
- ✦ 16srRNA sequencing and data analysis
- ✦ Molecular biology fingerprinting techniques (AFLP, ISSR, RAPD and southern blot analysis) for genetic integrity analysis and marker development for desired trait among the population
- ✦ Bioinformatics – Multiple sequence analysis, data blasting, vector removal, motifs, primer designing, modeling, etc.,
- ✦ PCR, restriction & ligation, cloning using kits, transformation using biolistics and *Agrobacterium*, isolation of genomic & plasmid DNA, etc.,
- ✦ Germplasm characterization and documentation using morphological, physiological and biochemical tools
- ✦ Sophisticated equipment like HPLC, GC, PCR, RT-PCT, electrophoresis, Gel documentation system, LKB Scintillation counter, IRGA, Fluorometer, Porometer and Canopy analyzer as per standards
- ✦ Exposed to the handling of automated gene sequencer MEGABACE (48 capillary) and AB3500 genetic Analyser
- ✦ Trained in safety handling of radioactive isotopes
- ✦ Plant tissue culture techniques (micropropagation, somatic embryogenesis, hardening of TC plants, analysis of somaclonal variants, genetic fidelity assessment of TC plants)
- ✦ Analysis and interpretation of data using various software packages (SPSS, NTSYS, Total Lab, Harvard graphics & Excel) and processing scientific images using Adobe Photoshop & Imaging programmes.
- ✦ Organizing and conducting field experiments/ bioefficacy experiments and cultural operations
- ✦ Qualified to impart training in the field of biotechnology, biochemistry and physiology to the visiting Graduate/ Post graduate/Research scholars in their projects.



## Personal Details

Father's Name : Shri. T.V. Thomas  
 Date of birth & Age : 03.02.1978, 44 years  
 Marital status : Married  
 Nationality : Indian  
 Languages known : English, Malayalam and Tamil



## Declaration

*I certify that the above given statements are true and correct to the best of my knowledge and belief.*

Coimbatore

*(Jibu Thomas)*

**References – on request**