


1	Name of Faculty	Dr. M MUKUNDA VANI		
2	Designation	Professor		
3	Nature of Job/Appointment	Regular		
4	Date of Joining	01 – 12 - 2022		
5	E-mail	mukundavanim_chem@cbit.ac.in		
6	Education Qualifications	Name of the Degree	Class	
		Ph. D	Doctor of Philosophy (Biotechnology)	Awarded
		PG	M. Tech. Chemical Reaction Engineering	First
		UG	B. Tech, Chemical Engineering	First with Distinction
7	Work Experience			
	Teaching	24 Years		
	Research	-		
	Industry	--		
	Others	09 Years (HOD)		
8	Area of Specialization	Biochemical Engineering, Process Modeling and Simulation		
9	Professional Memberships	Treasurer, IICChE-HRC, Life Member-IICChE, Life Member-ISTE		
10	Responsibilities held at Institution Level	<ol style="list-style-type: none"> 1. Member, Academic Council 2. Member, Institute Development Committee 3. Member, Exam and Results Committee 4. Member, Anti-ragging Committee 5. Member, NIRF Committee 6. Member, College Academic Committee 		
11	Responsibilities held at Department Level	<ol style="list-style-type: none"> 1. HOD 2. Chairperson - Board of Studies 3. Chairperson - Program Assessment and Quality Improvement Committee 		
12	Research Guidance	<ul style="list-style-type: none"> • Guiding One research scholar in BITS PILANI, Hyderabad campus • Guiding One research scholar in Anurag University, Hyderabad • Guiding One research scholar in Lovely Professional University, Punjab 		
13	Awards Received	<ol style="list-style-type: none"> 1. Received Best Presentation Certificate, Catalysis 2k24 under Technosmania 2k24 conducted by Department of chemical Engg., April 18h-24th, 2024 2. Best Presentation Award, International conference on Sustainable Research Energy and Environment (SREE-2024), April 5th-6th, 2024 3. Received seed money grant of Rs 2,30,277 for In House Faculty Research Projects titled "Green Synthesized Nanoparticle Coated Membranes for Microbial Fuel Cell Applications", CBIT, Hyderabad, March 26th 2024 4. Received seed money grant of Rs 50,957/- for In House Faculty Research Projects titled "Harnessing Natural Value-added Products from Floral Waste: Sustainable Approach Towards Zero-Waste", CBIT, Hyderabad, March 26th 2024 5. Received seed money grant of Rs 1,57,854/- for In House Faculty Research Projects titled "Valorization of Fruit Peels Waste as a Potential Source to Produce Cu Nanoparticles for in-situ Trapping of Nutrients for Modern Agricultural Practices", CBIT, Hyderabad, March 26th 2024 6. Received seed money grant of Rs 1,82,936/- for In House Faculty Research Projects titled "Parametric Study of Design of Sustainable Air Filter with MOF Coated Cotton Fiber for the Removal of Particulate Matter", CBIT, Hyderabad, March 26th 2024 7. Received seed money grant of Rs 43,205/- for In House Faculty Research Projects titled "Valorization of Fruit Peels Waste as a Potential Source to Produce Cu Nanoparticles for in-situ Trapping of Nutrients for Modern Agricultural Practices", CBIT, Hyderabad, March 26th 2024 		

8. Received seed money grant of Rs 10,000/- for In House Students Research Projects titled "Development of Cellulose Nano Crystals with Cotton Plant Extracts as a membrane", CBIT, Hyderabad, March 26th 2024
9. Received seed money grant of Rs 40,000/- for In House Students Research Projects titled "Porous G-C3N4 Based Nano composites with metal oxide nanoparticles for antibacterial applications", CBIT, Hyderabad, March 26th 2024
10. Received seed money grant of Rs 40,000/- for In House Students Research Projects titled "Synthesis and applications of CuNWs@Ag core-shell structures for antimicrobial use", CBIT, Hyderabad, March 26th 2024
11. Received seed money grant of Rs 30,000/- for In House Students Research Projects titled "Pyrolysis of Waste Plastic to Functional Fuel", CBIT, Hyderabad, March 26th 2024
12. Best Researcher Award For the Contribution and Honourable Achievement in Innovative Research, 10th Edition of International Research Awards on Advanced Nanomaterials And Nanotechnology, 22nd September 2023
13. Best Paper Award, (SCHEMCON 2023), organized by IChE Students Chapter, Kongu Engineering College, Perundurai in Association with IChE-CRC, Coimbatore, September 22-23, 2023
14. High Appreciation for significant contributions to IChE-HRC, Indian Institute of Chemical Engineers, Hyderabad Regional Centre, 29th July 2023
15. Received Rs 75000/- as a part of students research project on Sustainable cities and Communities: Human Hair to Liquid Fertilizers, ACIC-CBIT, May 2023
16. Received seed money grant of **Rs 1,90,000/- for R and D project** titled "Synthesis of iron nanoparticles loaded proton exchange membrane for microbial fuel cell application" by Anurag University on 17th March 2022.
17. Received **Best paper presenter award** for a paper presented at International conference on NMTEEA organized by BITS Pilani, Hyderabad Campus from 18th to 19th February 2022.
18. Received prestigious **Lupin Industries Best Chemical Engineering Teacher Award** by Indian Institute of Chemical Engineers, at CHEMCON 2020
19. Received a grant of **Three Lakhs rupees (3,00,000/-) from AICTE, New Delhi** for conducting Short Term Training Programme (STTP) on "Industrial Pollution & Control Strategies" in the year 2019-20.
20. Received **Best paper presenter award** for a paper presented at International conference on NMTEEA organized by BITS Pilani, Hyderabad Campus from 18th to 19th February 2022.
21. Received **Certificate of Appreciation** in recognition of the guidance and mentoring rendered to students working on Distillation of Essential Oils at the POPBL (Project Oriented Problem Based Learning) Program conducted by IUCEE Foundation from Aug-Dec 2021.
22. Treasurer, IChE- HRC, Convener, Student Chapters for the year 2021-23.
23. Executive Committee member, IChE- HRC, Co-Convener, Student Chapters for the year 2019-21.
24. **Certificate of Appreciation** for the profound guidance and chairmanship in the technical session of CHEMCON 2020 held from 27th -29th December 2020 by IChE and IChE-HRC
25. **Best Appreciation Award** from Youth for work ,AICTE, New Delhi, 2018
26. Received **Best paper presenter award** for a paper presented on National symposium organized by BITS Pilani, Hyderabad Campus, on Innovation in Chemical Engineering, ICE 2013 on 15-16, Nov 2013
27. Received **Best paper presentation award** for a paper presented on National symposium organized by society of applied biotechnology, on innovative and modern technologies for agricultural productivity, food security and environmental management on 22nd -23rd July 2011, Mangalore, Karnataka

		Process Dynamics and Control Process Modeling and Simulation Instrumentation and Process Control Chemical Engineering Thermodynamics-I Chemical Engineering Thermodynamics-II Mass Transfer Operations Biochemical Engineering Environmental studies Process Heat Transfer Fluid Mechanics Bioprocess Engineering Industrial Safety and Hazard Management Fertilizer Technology
14	Courses Handled at Under Graduate / Post Graduate Level.	
15	No. of Papers Published	National Journals – Nil International Journals – 19 National Conference –19 International Conference – 34
16	Projects Carried out	<ul style="list-style-type: none"> • Guided 2 M. Tech Project works. • More than 60 B. Tech Project works were guided till now. • Guiding 3 PhDs --
17	Patents	<ol style="list-style-type: none"> 1. Patent Application No. is 380822-001 Title of the invention: A Novel Device Using Enzymatic Biosensors For Pesticides Date of File: 01st day of March 2023 Name of Patent Applicants & Inventors: Dr. R. Venkat Reddy; Dr. M Mukunda Vani; Dr.S V G V A PRASAD; Dr Lakshmi D 2. Patent Application No. is 381108-001 Title of the invention: A Novel AI Based Solar Robot For Automated Inspection With Human-Level Intelligence For Biotech Farms Date of File: 07th day of March 2023 Name of Patent Applicants & Inventors: Dr. R. Venkat Reddy; Dr. M Mukunda Vani; Dr.S V G V A PRASAD; Dr Lakshmi D 3. Patent Application No. is 202041049196A. Title of the invention: Fluid Agitation Reactor With Modified Inclined Baffles Date of File: 11th Day of November 2020 Date of Publication: 20.11.2020, The Patent Office Journal No. 47/2020 Dated 20/11/2020, India Name of Patent Applicants & Inventors: Nagaram Mahender, Dr N Nanda Kumar, Dr. M. Mukunda Vani, Dr. SSSR Sarathbabu Duvvuri, Archana Rao P, SK. Shaheda 4. Patent Application No. is 2021101099. Australia Title of the innovation: A Novel Indigenous Sustainable Vaccine Carrier for Maintenance of Cold Chain. Date of File: 2nd March 2021 Date of Grant: 29th April 2021, Australia, pg 1-19 Name of Patent Applicants & Inventors: Panda Ramesh Chandra; RakshitPranati; Garg TanyaGarg; D Lakshmi; Vani M Mukunda; Reddy R Venkat; Snehi Jyoti; Mishra Ram Krishn; Bhattacharya Sumanta; Bhattacharyya Sonali; Samanta Lokanatha Dhali; Goyal Ravinder; Garg Anupam
18	Technology Transfer	--
19	Invited Speaker	Guest Lecture: <ol style="list-style-type: none"> 1. Resource person as a speaker for Training programme on “Enforcement of Act / Rules ” Sponsored by the Ministry of Road Transport and Highways (Transport Section), Govt. of India, New Delhi, organized by Engineering Staff College of India (ESCI), Hyderabad at : Lakshadweep, Union Territory from 19 – 21 March, 2024 2. Guest Lecture to Newly Recruited GP ‘A’ Officers (Probationers) of Military Engineer Services by Engineering Staff College of India, Hyderabad from 4th December – 23rd December, 2023 on 21st December 2023 3. Thermodynamic properties of fluids , at Department of Chemical Engineering, BVRIT, Hyderabad 4. Advanced Thermodynamics Concepts, at Department of Mechanical Engineering, KPRIT, Hyderabad 5. Advanced Control Strategies, Department of Chemical Engineering, BVRIT, Hyderabad
20	No. of Books/Chapter Published with details	<ol style="list-style-type: none"> 1. Published a book chapter titled Green synthesized nanomaterial coatings for high performance electrodes, Functional Coatings: Innovations & Challenges, John Wiley & Sons, Inc., NJ, USA,

2. ISSN/ISBN:9781394207275 Published a book chapter titled Converting plastic waste into building materials: Poly bricks, as part of the Book titled " From Waste to Wealth", Springer Nature Singapore Pte Ltd, ISSN/ISBN:9789819975518
3. Published a book chapter titled Use of banana stalks for biofertilizers production as part of the Book titled "From Waste to Wealth", Springer Nature Singapore Pte Ltd, ISSN/ISBN:9789819975518
4. Published a book titled Bio-chemical reaction studies on liquefaction of fruit pulp by invincible publishers-ISBN 978-93-87328-61-7, 2017-18, pp 1-231
5. Published a book chapter titled "Synthesis of Iron Nanoparticles Loaded Proton Exchange Membrane For Microbial Fuel Cell Application" PP 713-721, Publisher: Springer Singapore, ISSN 1863-5520, Environmental Science and Engineering. Published in: Advances In Chemical, Bio And Environmental Engineering" In Book Series "Environmental Science And Engineering" (Springer, Scopus Indexed)
6. Published a book chapter titled "Bioprocess Parameters for Thermophilic and Mesophilic Biogas Production: Recent Trends and Challenges" PP 225-256. Publisher: Springer Singapore, Published in: Bioenergy Research: Basic and Advanced Concepts.

Organized:

1. International Conference on Sustainable Energy and Environmental Developments: ICSEED24, 13th-14th December 2024 which is to be organized as a Chairperson
2. One Week National Level Faculty Development Program on Empowering Educators: AI tools for Engineering and Technology, 29 January 2024 - 02 February 2024
3. Organized Chemspark 2024 under Sudhee 2024 on 27th and 28th February 2024 as a Chairperson
4. 8 week Online Training Programme on Data Science for Engineers from 7th October to 2nd December 2023
5. IChE-HRC Lecture series -11 lectures online
6. AICTE sponsored Short Term Training Programme-III on "Industrial Pollution and Control Strategies" – 3 STTPs from 24th August 2020 to 28th November 2020
7. A Three Day Online FDP on "Municipal Waste Management during COVID-19 Pandemic" on 28th to 30th May 2020, Anurag University, Hyderabad
8. Two day National LEVEL Technical Fest Rasayanika under Indian Institute of Chemical Engineers student Chapter of Anurag Group of Institutions - Every year from 2012 onwards
9. Two day National conference on Emerging trends in Mechanical and Chemical Engineering (NCETMCE) on 24th and 25th January 2019, Anurag Group of Institutions, Hyderabad
10. Two day National conference on Recent advances and challenges in Chemical Engineering and applied chemistry on 16th and 17th March 2018 at Anurag Group of Institutions, Hyderabad
11. One week Faculty Development Programme on "Design and Analysis of experiments and optimization techniques" on 13th – 17th November, 2018 at Anurag Group of Institutions, Hyderabad
12. One week Faculty Development Programme on "Application of Aspen Plus in Process Industries" on 13th – 18th November, 2017 at Anurag Group of Institutions, Hyderabad
13. Three Day Faculty Development Programme on "Modeling, Simulation and Optimization of Chemical Processes" on 17th – 19th November, 2016 at Anurag Group of Institutions, Hyderabad
14. Organized several guest lectures, industry visits, workshops and conferences

Attended:

1. Attended One Week National Level Faculty Development Program on Empowering Educators: AI tools for Engineering and Technology, 29 January 2024 - 02 February 2024
2. Attended One Week online short-term course on "Principles of Analytical Instruments for Chemical and Environmental Engineers (PAICEE-2024)", 15-19 January 2024
3. Attended 8 week Online Training Programme on Data Science for Engineers from 7th October to 2nd December 2023
4. One Week International Short Term Training Program (Online) titled Recent Advancements in Fuel Cell and Hydrogen

21 Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops/Other Trainings (Attended and/or Organized).

- Storage, Department of Mechanical Engineering, Anurag University, in Collaboration with Centre for New Energy Transition Research, Federation University Australia, 09 - 13 October, 2023.
5. One day National Workshop on "Environmental Challenges in Pharmaceutical Industries: A Sustainable Management Approach", CSIR-NEERI, Hyderabad, 06 Oct, 2023
 6. Three day In-house MATLAB training programme on Simulink, HDL code generation, Medical Imaging, Optimization, Electric Vehicle, Machine and Deep Learning Toolboxes, Department of ECE and EEE, Chaitanya Bharathi Institute of Technology, Hyderabad, 3rd -5th July 2023
 7. One week self sponsored short term course on Advances in Energy and Environment for sustainable development (AEESD 2023), Department of Chemical Engineering and Center for Energy and Environment, Dr B R Ambedkar National Institute of Technology, Jalandhar, 1 to 5 June 2023
 8. Expert Talks, CBIT R& D team, 23 Sep, 30 Sep, 14 Oct, 2023
 9. Two days Yoga Workshop, Department of Physical Education, CBIT, 7-8th June 2024
 10. Two weeks Yoga training program, Department of Physical Education, CBIT from 14th to 27th May 2023
 11. Attended an AICTE-ISTE approved Orientation/Refresher programme on "Role of Biotechnology in Mitigation of Pollution and Restoration of Environment" organized by School of Engineering and Technology, GIET University, Gunupur, Odisha from 11th -17th January 2022.
 12. Attended an AICTE Training And Learning (ATAL) Academy Online Elementary FDP on " Design Thinking: Aspirations for Innovations" at All India ShriShivaji Memorial Society's College of Engineering from 29th November– 3rd December 2021.
 13. Attended an AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "FLUID FLOW ANALYSIS USING ASPEN HYSYS AND ASPEN PLUS FOR CHEMICAL ENGINEERS" at Vel Tech High Tech Dr.RangarajanDr.Sakunthala Engineering College from 13th – 17thSeptember 2021.
 14. Attended Faculty development programme on "Python 3.4.3" Programme organized by Anurag University with course material provided by Spoken Tutorial Project, IIT Bombay from 2020-09-14 to 2020-09-19. 14th to 19th September 2020.
 15. Attended 3 one week AICTE sponsored Faculty development programme on "Industrial Pollution and Control Strategies" organized by the Department of Chemical Engineering, Anurag Group of Institutions, Hyderabad from 23rd to 28th November 2020, 5th to 10th October 2020, 24th to 29th August 2020.
 16. Attended a Webinar on Intellectual Property Rights (IPR) Scope and Process of Filing organized by the Department of Chemical Engineering, BVRIT, Hyderabad on 14th July 2020.
 17. Attended a 5 day online Faculty development programme on "Recent Innovations in Chemical Engineering" organized by the Department of Chemical Engineering, BKIT BHALKI held during 29th June to 3rd July 2020.
 18. Attended a Webinar on "Using Simulation Application for teaching" organized by Comsol India on 16th June 2020
 19. Attended a Five day online FDP on "Domestic and industrial water and waste water treatment" from 6th to 10th June 2020 organised by Dept. of Chemical Engg, BVRIT.
 20. Attended an IEEE webinar on "Relevance of IEEE standards in Teaching, learning and Industry Collaborations" on 4th June 2020.
 21. Attended a Webinar on " Best practices of Safety Management in Chemical Industry" Organized by IChE-HRC on 31st May 2020
 22. Attended a Quiz on "Teaching Methods and Strategies" organized by MLR Institute of Technology on 29th May 2020
 23. Attended a Three day Online FDP on "Municipal Waste Management during Covid-19 Pandemic" from 28th to 30th May 2020 Organized by Department of Chemical Engineering, Anurag University.
 24. Attended a Webinar on "Teach from Home Using Google Classroom" by Dr. A. Mallikarjuna Reddy, Associate Professor, Department of CSE, Anurag University on 26th May, 2020.
 25. Attended a Webinar on "Next Gen Solutions amidst Covid-19" by Mr. Siva Polimetla, Head ER & D, NASSCOM, organized by Department of Mechanical Engg, Anurag University on 24th May, 2020.

26. Attended online Short Term Training Program on “MATLAB based Teaching-Learning in Mathematics, Science & Engineering” organized by Department of Electronics Engineering, RamraoAdik Institute of Technology, Nerul, Navi Mumbai in collaboration with DesignTech Systems Pvt. Ltd., Mumbai during 18th to 22nd May 2020.
27. Attended a Faculty Awareness programme on Outcome based education and NBA Accreditation organized by Sinhgad Institute of Technology and Science, Narhe, Pune on 15th May 2020
28. Attended a quiz on “NAAC awareness programme for faculty” organized by MarathwadaMitraMandal Institute of Technology, Lohgaon from 8th May to 14th May 2020
29. Attended a workshop on “Developing clean and green” organized during the 7th International conference on Transformation in Engineering Education by the Anurag Group of Institutions, Hyderabad from 5th to 8th January 2020.
30. Attended two week AICTE sponsored Faculty development programme on “Precision Engineering and Machining Processes ” organized by the Department of Mechanical Engineering, Anurag Group of Institutions, Hyderabad from 14th to 27th November 2019.
31. Attended one week AICTE sponsored Short term training programme on “Advances in Process Design by using simulators ” organized by the Department of Chemical Engineering, R V R & J C College of Engineering, Hyderabad from 28th October to 2nd November 2019.
32. Completed 12 Week NPTEL online Certification course on ‘Optimization in Chemical Engineering’ with a consolidated score of 61% during Jul-Oct 2018.
33. Attended 5 day GIAN course on “Air Pollution Control Technologies” Organized by JNTUH College of Engineering, Hyderabad, from 8th – 12th October 2018.
34. Participated in a one day Seminar on “ Science and Technology for Sustainable future” on the occasion of National Technology Day, organized by the Institution of Engineers (India), Telangana State Centre held on 11th May 2018 at VisvesvarayaBhavan, Khairatabad, Hyderabad.
35. Attended one week GIAN course on “Multiscale Modeling and Simulation of Heterogeneous Catalytic Reactors” Organized by the Department of Chemical Engineering, National Institute of Technology, Warangal from 8th – 12th January 2018.
36. Participated in a two day All India Seminar on “ Safety Management and Energy conservation in Process Industries” organized by the Institution of Engineers (India), Telangana State Centre in association with CBIT, Hyderabad held on 6th to 7th October 2017 at VisvesvarayaBhavan, Khairatabad, Hyderabad.
37. Participated in a one week Faculty development programme on “ Effective and Innovative ways of teaching and learning strategies” organized by the Department of Computer Science and Engineering, Anurag Group of Institutions, Hyderabad from 5th to 9th June 2017.
38. Participated in a one week Faculty development programme on “Engineering Drawing” organized by the Department of Mechanical Engineering, Anurag Group of Institutions, Hyderabad from 19th to 24th December 2016.
39. Attended one week GIAN course on Advanced Process Control Organized by the Department of Chemical Engineering, National Institute of Technology, Warangal from 12th – 17th December 2016.
40. Attended one week National workshop on “Composite materials and its application” organized by Department of Mechanical Engineering, Anurag Group of Institutions, Hyderabad from 29th February to 5th March 2016.
41. Attended workshop on Industrial Hazardous Waste Management in SME Sector organized by NI-MSME (National Institute for Micro, small and medium Enterprises, Yousufguda, Hyderabad. From 29-12-2015 to 30-12-2015.
42. Participated in Global Peoples Climate March 2015 organized by International Association of Lions Club on 29th November 2015 at IICT Grounds, Hyderabad.
43. Attended National workshop on “Modeling, simulation and Optimization of Bioprocesses using MATLAB, DESIGN EXPERT AND BERKELEY MADONNA SOFTWARES” organized by the Department of Biotechnology, National Institute of Technology, Warangal from 02nd to 06th November , 2015.

44. Two-day workshop on Applications of MATLAB and SIMULINK in Engineering Education conducted by Anurag Group of Institutions, Hyderabad from 30th October to 31st October 2015.
45. Attended workshop on Outcome based Education-NBA on October 14th 2015 at JNTU, Hyderabad.
46. Attended National workshop on “Modeling, simulation and Optimization of Bioprocesses” organized by the Department of Biotechnology, National Institute of Technology, Warangal under TEQIP-II from 08th to 10th November, 2013.
47. Attended a workshop on “Down Stream Processing” conducted by JNTU, Hyderabad.
48. Attended AICTE-ISTE sponsored short-term training programme on “Modeling, simulation and Optimization of Chemical Process Industries” from 15th to 27th December, 2003 at National Institute of Technology, Warangal.
49. Two- week ISTE short term training programme(STTP) on “Pedogogy for Effective use of ICT in Engineering Education conducted by IIT Bombay under the “ National Mission on Education Through ICT (MHRD, Govt. of India) on (January 5th- 7th and 19th- 21st, 2015) Organized by Anurag Group of Institutions (Formerly CVSR College of Engineering), Hyderabad, India.
50. Attended Two-week workshop on Control Systems conducted by IIT Bombay, under the National Mission on Education Through ICT (MHRD, Govt. of India)from 12th December to 22nd December 2014.
51. Attended Two-week workshop on Fluid Mechanics conducted by IIT Kanpur, under the National Mission on Education Through ICT (MHRD, Govt. of India) from 20th May to 30th May 2014.
52. Two- week ISTE Workshop on “Engineering Thermodynamics conducted by IIT Bombay under the “National Mission on Education Through ICT (MHRD, Govt. of India) on (December 11th- 21st, 2012) Organized by Anurag Group of Institutions (Formerly CVSR College of Engineering), Hyderabad, India.
53. Two-week ISTE workshop on “Introduction to Research Methodologies” conducted by IIT-Bombay, National Mission on Education through-ICT (MHRD, Govt of India) from 25th June to 4th July 2012.
54. Attended two day “Entrepreneurship Awareness” training programme held at SMS (C.B.I.T campus) organized by school of Management Studies, C.B.I.T on 24th and 25th August, 1999.

22 Details of Journal Publications/
Conferences (National and
International)

International Journal

1. D. Shruthi Keerthi, M. Mukunda Vani, Sadhu Tharun, M. R. Sai Teja, Balaji Krishnamurthy, November 2024, Optimization of pencil graphite electrodes through green-synthesized iron nanomaterials for enhanced biofuel cell performance, *Ionics, SCI, Springer*
<https://doi.org/10.1007/s11581-024-05924-4>
2. D. Shruthi Keerthi, M. Mukunda Vani, Balaji Krishnamurthy, 22 July 2024, “Pencil Graphite Electrodes Enhanced with Green Synthesized Nano Particles as Efficient Electrocatalysts for Application in Bio-Fuel Cells”, *Transactions of the Indian National Academy of Engineering*, Volume 9, pages 867–877, (2024), Springer
<https://doi.org/10.1007/s41403-024-00492-5>
3. Swathi Aleti, Savita Belwal and Mukunda Vani Medala, Optimizing organically nano-fabricated Ni metal complexes for enhanced antioxidant and anticancer activity using response surface methodology, *Future Journal of Pharmaceutical Sciences*, 10, 2024, *SCI, Springer*
<https://doi.org/10.1186/s43094-024-00618-0>
- 4.
5. Sk. Shaheda, Prof. V.V. Basava Rao, Dr. M. Mukunda Vani, January 2023. “SIMULATION STUDIES FOR PRODUCTION OF ISOPROPYL ACETATE USING ASPEN PLUS”, *IJFANS*, Vol.12, Iss.1, Jan 2023, Pages 248-252, e-ISSN 2320 –7876 www.ijfans.org, UGC CARE Listed (Group -I) Journal
6. Mukunda Vani M, Shruthi Keerthi D, Sridhar Sundergopal, November 2022. “Optimisation studies on removal of fluoride by micellar enhanced ultrafiltration”, *Materials Today: Proceedings*, [Volume 72, Part 1](#), 2023, Pages 486-493, ISSN No:2214-7853, **Scopus**, Elsevier
<https://doi.org/10.1016/j.matpr.2022.09.454>
7. M.B. Venkata Ramana Reddy, M. Mukunda Vani, T. Vijaya Kumar, February 2022, “Effect Of CO₂ on the growth of *Anabaena Ambigua* using External Loop Airlift Photobioreactor”, *Journal of Chemical Technology and Metallurgy*, 57, 2, 2022, 279-285, ISSN No:1314-7471 (print), ISSN 1314-7978 (on line), **Scopus**

8. D. ShruthiKeerthi and M.MukundaVani January 2022, "Optimization studies on decolorization of textile wastewater using natural coagulants", Materials Today: Proceedings, **57.4**, 2022, 1546-1552 ISSN No:2214-7853, **Scopus**, Elsevier <https://doi.org/10.1016/j.matpr.2021.12.160>
9. M.MukundaVani, Purushotham Theegala, M.B.VenkataRamana Reddy, T.Vijaya Kumar, October 2021, "Investigation of antibacterial compounds present in different solvent extracts of *AzadirachtaIndica*", Ecology, Environment and Conservation(Eco. Env. & Cons), October Suppl. Issue, S226-S231, ISSN No:0971-765X, **Scopus**
10. M. MukundaVani, Yasser MirzaBaig, Caroline Wesley and Syed Rashid Iqbal, January 2021 "Sustainable Project-Based Learning: A More Practical Approach", Journal of Engineering Education Transformations, 34, 718-724, Print ISSN: 2349 – 2473, eISSN 2394-1707, **SCOPUS**, UGC-CARE, EBSCO
11. Vijaya Kumar Talari, PurushothamTheegala and M.Mukunda Vani, December 2020, "Experimental Investigation of Temperature-Dependent Dynamic Viscosity of SiO₂-Water Nanofluid at Various Concentrations", International Journal of Advanced Research in Engineering and Technology (IJARET), 11(12), 2599-2608, ISSN Print: 0976-6480 and ISSN Online: 0976-6499, DOI: 10.34218/IJARET.11.12.2020.245.**SCOPUS**
12. M.MukundaVani, R.SatishBabu and M.B.VenkataRamana Reddy, 2020"Process Variable Optimization for the Liquefaction of Guava Fruit Pulp using Soluble Enzyme by Response Surface Methodology", Journal of Biochemical Technology, 11(3),68-76, ISSN(Print) : 0974-2328 ISSN(Online) : 0974-2328, Thomson Reuters, **Emerging Sources Citation Index** (also known as ESCI)
13. M.B. VenkataRamana Reddy and M.MukundaVani, 2020"Study of flow patterns of *Anabaena ambigua* culture in an external loop airlift photobioreactor with cross-shaped spargerusing Computational Fluid Dynamics analysis", Journal of Biochemical Technology, 11(3), 1-7 ISSN(Print) : 0974-2328 ISSN(Online) : 0974-2328, Thomson Reuters, **Emerging Sources Citation Index** (also known as ESCI)
14. M B Venkataramana Reddy and M MukundaVani.,2019. "Comparative studies on biomass of *Anabaena ambigua* grown in an external loop airlift photo bioreactor using cross-shaped and circular sparger". Indian Journal of Biotechnology, 18(2), 126-131, ISSN(Print) : 0972-5849 ISSN(Online) : 0975-0967, Impact Factor : 0.343 (JCR 2018), Thomson Reuters, **Science Citation Index Expanded** (also known as SciSearch), Journal Citation Reports/Science Edition, Biotechnology Citation Index, Scopus
15. M. MukundaVani., D. ShruthiKeerthi and SkShaheda.,2019. "Response Surface Optimization of Protease Synthesis by Strain of Bacillus sp. obtained from soil samples". International Journal of Mechanical and Production Engineering Research and Development.Vol. 9, Special Issue, Apr 2019, 70-78, ISSN(Print) : 2249-6890 ISSN(Online) : 2249-8001, Impact Factor(JCC) : 7.6197 NAAS Rating : 3.11 IBI Factor : 3.2, **SCOPUS**
16. Medala MukundaVani and Dubasi GovardhanaRao., 2019. "Effective Diffusivity Coefficients for Degradation of Pectin in Guava (*Psidiumguajava* L.) Pulps Using Immobilized Pectinase". Applied Food Biotechnology, 6(2), 119-126, pISSN: 2345-5357, eISSN: 2423-4214, DOI: <https://doi.org/10.22037/afb.v6i2.23307>, Web of Science™ Core Collection, **Emerging Sources Citation Index** (ESCI), Scopus
17. M. MukundaVani and D.ShruthiKeerthi., 2018. "Kinetic Study on Production of Protease from Soil Samples". International Journal of Current Engineering and Scientific Research (IJCESR), 5(4), 554-561. ISSN (PRINT): 2393-8374, (ONLINE): 2394-0697, Impact factor: 3.241 [DOI:10.21276/ijcesr](https://doi.org/10.21276/ijcesr).
18. Shaikh Shaheda.,Dr.M.MukundaVani and NuthakkiSaiVenkata Dinesh., 2018. "Equilibrium Studies on Reactive Extraction of Propanoic Acid using Tributyl Amine in Different Diluents". International Journal of Current Engineering and Scientific Research (IJCESR), 5(4), 562-567, ISSN (PRINT): 2393-8374, (ONLINE): 2394-0697, Impact factor: 3.241 [DOI:10.21276/ijcesr](https://doi.org/10.21276/ijcesr).
19. M. MukundaVani.,LinishaBiswal., K. Pushpitha and P. Sagar Suresh Rao., February 2018. "Equilibrium Studies on Adsorption of Organic Contaminants from Wastewater Using Activated Carbon from Putrescible Vegetable Waste". Asian Journal Of Microbiology, Biotechnology And Environmental Science, 20, Feb suppl Issue, 207-211, ISSN-0972-300,India impact factor 4.93, **SCOPUS**, Hindex 13, UGC Journal No. 8799
20. M. MukundaVani., K. Pushpitha., LinishaBiswal and G. NikhileshVarma., September 2016. "Kinetic studies on adsorption of organic contaminants using activated carbon from putrescible vegetable waste". International Journal of Emerging Trends in Engineering and Development, 5(6), 97-106. ISSN No: 2249-6149, Ref No: IJETED/16/E08/A. Impact factor: 3.618
21. M. MukundaVani., P. Sagar Suresh Rao., G. NikhileshVarma., K. Pushpitha and LinishaBiswal., 2016."Identification And Chemical Characterization Of Compounds Present In Different Solvent Extracts Of AzadirachtaIndica Through Thin Layer Chromatography Analysis". International Journal of Research in Engineering and Technology, 5(2), 202-207. ISSN No: 2321-7308, 2319-1163. Impact factor: 3.8965
22. M. MukundaVani., M. Lakshmi Narasu., D. G. Rao and JyotiKiran Singh., 2011."Studies on Degradation of Pectin in Solutions using Commercial Pectinase Enzyme".International Journal of Biological Sciences and Engineering,2(3), 235-242. ISSN 0976-1519, Impact factor: 0.676
23. M. MukundaVani., M. Lakshmi Narasu., D. G. Rao, Abdul Bari Mohd and JyotiKiran Singh., 2011."Kinetic Studies on Degradation of Pectin in Synthetic Pectin Solutions Using Immobilized Pectinase Enzyme".Vegetos-An International Journal of Plant Research, 24(2), 202-207. ISSN 0970-4078, NAAS Impact Factor: 6.2, **Scopus**, UGC Journal No. 35540

International /National Conferences

1. Catalysis 2k24 under Technosmania 2k24, A National level techno cultural fest, Department of Chemical Engineering, University College of Technology, Osmania University, Hyderabad, April 18-20, 2024
Topic: High Performance H₂ Production using SESMR Process

2. Catalysis 2k24 under Technosmania 2k24, A National level techno cultural fest, Department of Chemical Engineering, University College of Technology, Osmania University, Hyderabad, April 18-20, 2024
Topic: A Sustainable approach through pyrolysis for converting polymers to ecofriendly Biofuels
3. International conference on Sustainable Research Energy and Environment (SREE-2024), Department of Chemical Engineering and Centre for Energy and Environment, Dr B R Ambedkar National Institute of Technology, Jalandhar, April 5-6, 2024
Topic: Synthesis of Green Nanoparticles applications in Microbial Fuel Cell
4. International conference on Sustainable Research Energy and Environment (SREE-2024), Department of Chemical Engineering and Centre for Energy and Environment, Dr B R Ambedkar National Institute of Technology, Jalandhar, April 5-6, 2024
Topic: Pyrolysis of Polymers To Alternate Fuels Using Effective Equipment And Procedures
5. International conference on Novel materials and Technologies for Engineering for Engineering and Environment applications NMTE2A-2024, BITS Pilani, Hyderabad Campus, 17th Feb-18th Feb 2024
Topic: Isolation of Bioactive Molecules using Pathimugam.
6. International conference on Novel materials and Technologies for Engineering for Engineering and Environment applications NMTE2A-2024, BITS Pilani, Hyderabad Campus, 17th Feb-18th Feb 2024
Topic: Green Treatment Approaches for Heavy Metals Contaminated Soil: Semantic Analysis of 28 Years Data – Part I”.
7. International conference on Novel materials and Technologies for Engineering for Engineering and Environment applications NMTE2A-2024, BITS Pilani, Hyderabad Campus, 17th Feb-18th Feb 2024
Topic: Degradation of DOP-HCl from solutions using a metal organic framework
8. International conference on Novel materials and Technologies for Engineering for Engineering and Environment applications NMTE2A-2024, BITS Pilani, Hyderabad Campus, 17th Feb-18th Feb 2024
Topic: Degradation of Mefenemic acid from wastewater through the utilization of a Metal organic framework
9. International conference on Novel materials and Technologies for Engineering for Engineering and Environment applications NMTE2A-2024, BITS Pilani, Hyderabad Campus, 17th Feb-18th Feb 2024
Topic: A review on potential application of bio-based cellulose nanocrystals (CNC) for the removal of particulate matter
10. International conference on Energy Transition: Challenges and Opportunities, IChE-CHEMCON 2023, Heritage Institute of Technology, Kolkata, December 27-30, 2023
Topic: Studies on the removal of dopamine from wastewater using a metal-organic framework
11. International conference on Energy Transition: Challenges and Opportunities, IChE-CHEMCON 2023, Heritage Institute of Technology, Kolkata, December 27-30, 2023
Topic: Analysing the efficiency of basolite for mefenamic acid degradation in pharma waste using HPLC method
12. 3rd International conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE 2023), Department of Chemical Engineering, National Institute of Technology, Warangal, November 24-25, 2023.
Topic: Surface Modification of Pencil Graphite Electrodes for Enhanced Energy Applications using Green Synthesis
13. Research Day 2023, Chaitanya Bharathi Institute of Technology, Hyderabad, 18th November 2023
Topic: Degradation of Mefenamic Acid from wastewater through the utilization of a Metal-organic framework
14. Research Day 2023, Chaitanya Bharathi Institute of Technology, Hyderabad, 18th November 2023
Topic: Degradation of DOP-HCL from solutions using a metal-organic framework
15. Research Day 2023, Chaitanya Bharathi Institute of Technology, Hyderabad, 18th November 2023
Topic: Engineering Chemicals in cosmetics and personal care products
16. 19th Annual Session of Students Chemical Engineering Congress (SCHEMCON 2023), IChE Students Chapter, Kongu Engineering College, Perundurai in Association with IChE-CRC, Coimbatore, September 22-23, 2023
Topic: Measuring The Air Core Diameter Of Operating Hydro Cyclone Using Edge Detection Technique (Image Processing), Best Paper Award
17. 19th Annual Session of Students Chemical Engineering Congress (SCHEMCON 2023), IChE Students Chapter, Kongu Engineering College, Perundurai in Association with IChE-CRC, Coimbatore, September 22-23, 2023
Topic: Studies on the removal of phosphorus from wastewater using a metal-organic framework
18. 19th Annual Session of Students Chemical Engineering Congress (SCHEMCON 2023), IChE Students Chapter, Kongu Engineering College, Perundurai in Association with IChE-CRC, Coimbatore, September 22-23, 2023
Topic: Quenching Of Paraformaldehyde From Clopidogrel Bisulphate
19. Presented a paper at Chemspark 2k23, a National level Technical Fest under Sudhee 2023, organized by CBIT, Hyderabad on 31st January-1st February 2023.
Topic: Palladium-based Intermetallic Nano-electrocatalysts for enhancing Electrochemical Oxygen Reduction Reaction Activities
20. Presented a paper at 3rd International Conference on CHEMICAL, BIO & ENVIRONMENTAL ENGINEERING (CHEMBIOEN-2022) organized by BVRIT, Hyderabad and NIT Jalandhar, on November 4-5, 2022.
Topic: Process Intensification Studies for Production of Isopropyl acetate using Aspen Plus
21. Presented a paper at 3rd International Conference on CHEMICAL, BIO & ENVIRONMENTAL ENGINEERING (CHEMBIOEN-2022) organized by BVRIT, Hyderabad and NIT Jalandhar, on November 4-5, 2022.
Topic: Separation of dichloromethane and acetone mixture
New operation strategy for the performance evaluation on separation of Dichloromethane from Acetone

22. Presented a paper at 3rd International Conference on CHEMICAL, BIO & ENVIRONMENTAL ENGINEERING (CHEMBIOEN-2022) organized by BVRIT, Hyderabad and NIT Jalandhar, on November 4-5, 2022.

Topic: STEAM DISTILLATION OF TULASI OIL USING SOLAR CU-PLATE

23. Presented a paper at 3rd International Conference on CHEMICAL, BIO & ENVIRONMENTAL ENGINEERING (CHEMBIOEN-2022) organized by BVRIT, Hyderabad and NIT Jalandhar, on November 4-5, 2022.

Topic: Preparation & Performance studies of polyether sulfone based Mixed Matrix Membranes

24. Presented a paper at International conference on Novel Materials and Technologies for Energy and Environment Applications (NMTEEA 2022) under session Waste to Energy, organized by BITS Pilani, Hyderabad Campus, on 18-19, February 2022.

Topic: Solar Bioconversion of Food waste for production of Biogas

Award: Best oral paper presentation award received by Mukunda Vani, Professor, Dept. of Chemical Engg.

25. Presented a paper at International conference on Novel Materials and Technologies for Energy and Environment Applications (NMTEEA 2022) under session Environmental applications, organized by BITS Pilani, Hyderabad Campus, on 18-19, February 2022.

Topic: Solar Bioconversion of Food waste for production of Biogas

26. Presented a paper at International conference on Novel Materials and Technologies for Energy and Environment Applications (NMTEEA 2022) under session Environmental applications, organized by BITS Pilani, Hyderabad Campus, on 18-19, February 2022.

Topic: Optimisation studies on Removal of Fluoride by Micellar Enhanced Ultrafiltration

27. Presented a paper at National Technical Symposium, organized by JNTU-Hyderabad, from 12th – 13th, April 2022.

Topic: Concentration of Lithium ions using a two chambered electro dialysis cell for battery applications.

28. Presented a paper at SUDHEE-National Technical Symposium, organized by CBIT, Hyderabad, from 23rd – 24th, April 2022.

Topic: Enrichment of Lithium ions using a two chambered electro dialysis system.

29. Presented a paper at National Technical Symposium, organized by SURE in collaboration with ICT, Mumbai, from 26th – 28th, February 2022.

Topic: Concentration of Lithium ions using a two chambered electro dialysis cell using Nanotechnology for green battery applications.

30. Presented a paper at International Chemical Engineering Conference on Sustainable Technologies in Water Treatment and Desalination (STWTD-2022) organized by Department of Chemical Engineering, National Institute of Technology, Calicut, Kerala, 28th -29th January 2022.

Topic: Development and Characterization of Novel Synthetic Polymeric Membranes.

31. Presented a paper at International Chemical Engineering Conference 2021 organized by Department of Chemical Engineering, Dr. B R Ambedkar National Institute of Technology, Jalandhar, Punjab, 16th -19th September 2021.

Topic: Optimization studies on Decolorization of Textile Wastewater Using Natural Coagulants.

32. Presented a paper at 2nd International Conference on "CHEMICAL, BIO & ENVIRONMENTAL ENGINEERING (CHEMBIOEN-2021) organized by Department of Chemical Engineering, Dr. B R Ambedkar National Institute of Technology, Jalandhar, Punjab, 20th -22nd August 2021.

Topic: Synthesis of iron nanoparticles loaded proton exchange membrane for microbial fuel cell application

33. Presented a paper at SCHEMCON 2021 organized by MANIT and IISER Bhopal from 22nd – 23rd, October 2021.

Topic: Treatment of Rice Gruel Wastewater using a Microbial Fuel cell Incorporated with Sulfonated Polysulfone membrane

34. Presented a paper at SCHEMCON 2021 organized by MANIT and IISER Bhopal from 22nd – 23rd, October 2021.

Topic: Forward Osmosis Aided concentration of sucrose from sugarcane juice using Hydrophilized Polyamide membrane.

35. Presented a paper at CHEMCON 2020 organized by Indian Institute of Chemical Engineers in collaboration with Hyderabad Regional Centre from 27th – 29th, December 2020.

Topic: Plastic Waste Management and Recycling – Plastic Bricks

36. Presented a paper at International conference organized by Department of Chemical Engineering, Osmania University College of Technology, Hyderabad on the Recent Advances in Chemical Engineering from 8th – 9th, January 2020.

Topic: Kinetic study and design of batch reactive distillation column for production of ethyl acetate.

37. Presented a paper at International conference organized by Department of Chemical Engineering, Osmania University College of Technology, Hyderabad on the International Conference on Recent Advances in Chemical Engineering from 8th – 9th, January 2020.

Topic: Synthesis and Characterization of mixed matrix membrane

38. Presented a paper at International conference organized by Department of Chemical Engineering, Annamalai University, on the International Conference on Recent trends in Chemical and Environmental Biotechnology from 14th – 15th, February 2020.

Topic: Synthesis and Characterization of mixed matrix membrane

39. Presented a paper at National conference organized by Department of Mechanical and Chemical Engineering, Anurag Group of Institutions, Hyderabad on Emerging Trends in Mechanical and Chemical Engineering (NCETMCE) from 24th – 25th, January 2019.

Topic: Response Surface Optimization of Protease Synthesis by strain of Bacillus Sp. Obtained from soil samples.

40. Published in proceedings at Chemcon 2018, International conference on Seamless Chemical Engineering in service of Humanity Innovations, Opportunities and Challenges organized by IChEDAoba

Regional Centre at Department Of Chemical Engineering, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab from 27th – 30th, December 2018.

Topic: Study on dense medium cyclone performance treating high ash medium coking coal.

41. Published in proceedings at Chemcon 2018, International conference on Seamless Chemical Engineering in service of Humanity Innovations, Opportunities and Challenges organized by IChEDAoba Regional Centre at Department Of Chemical Engineering, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab from 27th – 30th, December 2018.

Topic: Development of membranes for surface and ground water treatment.

42. Published in proceedings at Chemcon 2018, International conference on Seamless Chemical Engineering in service of Humanity Innovations, Opportunities and Challenges organized by IChEDAoba Regional Centre at Department Of Chemical Engineering, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab from 27th – 30th, December 2018.

Topic: Kinetic study on decolorization of textile waste water using Natural Coagulants.

43. Presented a paper at National conference organized by Department of Chemical Engineering, Anurag Group of Institutions, Hyderabad on Recent Advances and Challenges in Chemical Engineering and Applied Chemistry from 16th – 17th, March 2018.

Topic: Kinetic Studies on Production of Protease from soil samples by the strain of Bacillus sp.

44. Presented a paper at National conference organized by Department of Chemical Engineering, Anurag Group of Institutions, Hyderabad on Recent Advances and Challenges in Chemical Engineering and Applied Chemistry from 16th – 17th, March 2018.

Topic: Equilibrium studies on reactive extraction of propionic acid using tributyl amine in different diluents.

45. Presented a paper at International conference organized by Jawaharlal Nehru Technological University Hyderabad on Biotechnology and Bioengineering - Trends from 23rd – 25th, March 2017.

Topic: Kinetic Studies on Production of Protease from soil samples.

46. Presented a paper at International conference organized by School of Biosciences and Technology, VIT, Chennai on Advances in Algal Biotechnology from 10th – 12th, August 2016, pg 79.

Topic: Kinetic Studies on Activated Carbon Prepared From Putrescible Vegetable Waste for the adsorption of Organic Contaminants from Waste Water.

47. Presented a paper on National seminar organized by IICT, Hyderabad under Indian Society of Analytical Scientists, Hyderabad on Emerging Trends in Analytical Sciences (ETAS – 2016) on 21-22, March 2016, pg 23-24.

Topic: Determination of Effective Diffusion Coefficient of Pectin in Gauva Fruit Pulp with Immobilized Pectinase Enzyme.

48. Presented a paper on National symposium organized by BITS Pilani, Hyderabad Campus, on Innovation in Chemical Engineering, ICE 2013 on 15-16, Nov 2013, Pg 188-190.

Topic: Biochemical Reaction Engineering studies on Liquefaction of Gauva Fruit Pulp using immobilized pectinase enzyme

Awards: **Best paper presenter award** received by Mukunda Vani, Associate Professor, Dept. of Chemical Engg.

49. Presented in the poster session of the International Conference on Biotechnology in Pharma and Food Industries conducted by Gitam University, ICBPF from 29th -30th July, 2011, pg 54.

Title: Kinetic Studies on Pectin Degradation Using Pectinase Enzyme In Model Pectin Solutions.

50. Presented a paper on National symposium organized by society of applied biotechnology, on innovative and modern technologies for agricultural productivity, food security and environmental management on 22nd -23rd July 2011, Mangalore, Karnataka, pg 120.

Topic: Studies on degradation of pectin in synthetic pectin solution using immobilized pectinase enzyme.

Awards: **Best paper presentation award** received by Mukunda Vani, Associate Professor, Dept. of Chemical Engg.

51. Presented a paper on "Transesterification of Vegetable oil for Biodiesel Production: Identification of Lipase Producing Fungi and Optimization of Medium Composition" conducted by Chemcon'2005 on 17th December 2005 at IIT, New Delhi.

52. Presented a paper on "Esterification of Lactic acid with methanol in semi-batch reactor" conducted by Chemcon'2002 from 19th -22nd December 2002, College of Technology, Osmania University, Hyderabad

53. Presented a paper on "Coupling Enzymatic Reaction with Adsorption for Phenol Removal" conducted by Techno-Quest '2000 at College of Technology, Osmania University, Hyderabad from 18th -19th February 2000, which fetched second prize.