

COVER LETTER

Dr. BABU RAO GADDALA

S/O PULLAIAH

GUMMADIDURRU (POST)

PENUGANCHIPROLU (MDL)

KRISHNA (DIST) -521190

Andhra Pradesh, INDIA, **Mobile No:** +919908772590

E-mail: baburao01803@gmail.com ; **Specialization:** Chemical Engg

DOB: 13-07-1984

Marital Status: Married

Date: 01-10-2025

Dear Sir/Madam,

I am writing to express my deep interest in applying for suitable work positions in your esteemed organization which is challenging and supportive, where my technical skills and managerial skills can contribute to society through research and development.

I **Dr.BABU RAO GADDALA** is currently working as Associate Professor in the department of Chemical Engineering, Guru Ghasidas Vishwavidyalaya(**A Central University**), Bilaspur, Chhattisgarh, India. I have been awarded Ph.D in the month of January 2016 in the Department of Chemical Engineering, Andhra University, Visakhapatnam, India. The title of my thesis is "*Studies on Biosorption of heavy metal ions (Cd^{2+} , Co^{2+} , Ni^{2+} & Zn^{2+}) using marine macro-Algae *Sargassum Cinereum* & *Ulva Lactuaca*".*

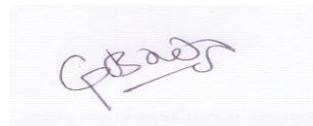
I have obtained M.Tech degree first class with distinction in Chemical Engineering in 2007&B.Tech with first class in Chemical Engineering both from Vignan's Engineering College Guntur (under JNTU, Hyderabad), Andhra Pradesh., India in 2005. I have consolidated experience of **18 years** in teaching in India & **abroad (Oman)**.

I have published **39** research articles in peer reviewed journals(SCI & Scopus), **2** book chapters, Editor for **2** Edited book, **1** Book as an author, **11** patents & some of are under review. I had participated & presented research papers in national (**8**) and international conferences (**11**) in India, Oman & Bahrain. & online FDPs (**10**) and webinars (**20**). I have supervised **17** B.Tech Chemical Engg & **1** M.Tech project.

I am quite experienced in operating AAS and UV-Vis. Having brought all these points to your notice, I strongly believe that I can complement the research/teaching in your organization while learning. I have **20** national & international Professional Body Memberships which will give up to date knowledge of the field.

Thank you very much for your time and consideration. I would be grateful to you if you could answer me and discuss the possibility of employment.

Yours sincerely,



CURRICULUM-VITAE



Dr.BABU RAO GADDALA

S/O PULLAIAH

GUMMADIDURRU (POST)

PENUGANCHIPROLU (MDL)

KRISHNA (DIST) -521190

Andhra Pradesh, INDIA, **Mobile No:** +91-9908772590

E-mail: baburao01803@gmail.com

Google Scholar account details: <https://scholar.google.com/citations?hl=en&user=dGuuRbcAAAAJ>

ORCID account Details: <https://orcid.org/0000-0003-4190-8325>

Research gate account Details: <https://www.researchgate.net/profile/Babu-Gaddala>

LinkedIn account Details: [linkedin.com/in/dr-baburao-gaddala-59589176](https://www.linkedin.com/in/dr-baburao-gaddala-59589176)

Scopus account Details: <https://www.scopus.com/authid/detail.uri?authorId=58799210900>

WOS/Publion account Details: <https://www.webofscience.com/wos/author/record/ISV-4183-2023>

SSRN account Details: https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=6556444

Academia account Details: <https://independent.academia.edu/BabuRao35>

Vidwan ID: <https://vidwan.inflibnet.ac.in/profile/591024>

Professional website Profile Details: <https://www.new.ggu.ac.in/departement-staff/6/staff-details/1102/0/>

Academic Qualifications:

Degree	Discipline/ Specialization	College/University /Institute	Period	Division
Ph.D	Chemical Engg	Andhra University (A), Visakhapatnam, Andhra Pradesh, INDIA	2010(May)- 2016(05-01-2016)	
M. Tech.	Chemical Engg	Vignan's Engg College Vadlamudi,Guntur(D.T), A.P (JNTUH)	2005-2007	First with Distinction (81.52%)
B. Tech.	Chemical Engg	Vignan's Engg College Vadlamudi,A.P. (Affiliated to JNTUH)	2001-2005	First (69.36%)
Intermediate	M.P.C	Board of Intermediate	1999-2001	First (80.9%)
SSC	SSC	Board of Secondary Education	1999	First (77.5%)

Teaching Experience (India (9Y/7M/24D) +Abroad (7Y/7M/5D) + India (9M) =18Y:

- ❖ Currently I am working as **Associate Professor** in the department of Chemical Engineering, School of Studies of Engineering & Technology at **Guru Ghasidas Vishwavidyalaya (A Central University), Koni, Bilaspur, Chhattisgarh, 495009, India** from **23-12-2024 to till date**.
- ❖ I have been worked as **Sr. Lecturer** in the department of Chemical Engineering, Mechanical & Industrial Engineering Section at **University of Technology and Applied Sciences, Muscat, Sultanate of Oman** from **16-12-2022 to 15-12-2024**.
- ❖ I have been worked as **Lecturer** in the department of Chemical Engineering, Mechanical & Industrial Engineering Section at **Higher College of Technology, Muscat, Sultanate of Oman** from **10-05-2017 to 15-12-2022**.
- ❖ I have been worked as **Sr.Asst. Professor** in the Department of Chemical Engineering, at GMR Institute of Technology (Autonomous), Rajam, Srikakulam (D.T), Andhra Pradesh, India from **01-10-2010 to 22-04-2017**.
- ❖ I have been worked as **Asst. Professor** in the Department of Chemical Engineering at GMR Institute of Technology (Autonomous), Rajam, Srikakulam (D.T), Andhra Pradesh, India from **29-08-2007 to 31-09-2010**.

Key Responsibilities:

- ❖ **Teaching:** Deliver high-quality instruction to undergraduate (UG) and postgraduate (PG) students in Chemical Engg courses.
- ❖ **Research:** Engage in research activities, publish papers in reputed journals, and contribute to the institution's academic excellence.
- ❖ **Curriculum Development:** Design and update course materials, curricula, and syllabi in line with the latest advancements in the field.
- ❖ **Mentoring:** Guide students in their academic and research projects, providing support for their professional development.
- ❖ **Collaboration:** Work collaboratively with colleagues and contribute to the department's growth and innovation.

Significant Outreach Contributions:

- ❖ **STEM:** Overseeing a multi-year mentorship program for under-represented students in the fields of Science Technology Engineering and Mathematics (STEM).

- ❖ **Community Health Initiatives:** Created the awareness and Setting up health checks and education in places with limited access.
- ❖ **Educational Workshops:** Conducted holding free, open-to-the-public workshops to enhance skills (e.g., Updated Software's, coding).
- ❖ Participated and actively involved in Public science communication in the process of producing widely viewed, easily available science content such as podcasts, videos, and public speeches.
- ❖ Working with local governments to change laws for the benefit of society.

Teaching Statement

Teaching is one of the most interesting aspects of an academic job and it is the opportunity to teach and interact with students. To communicate various ideas and concepts to students, and to give confidence to them, learn and think independently, is an honoring practice. This is one of my primary motivations in applying for an academic job.

I have enjoyed/enjoying an extensive career teaching undergraduate students Chemical engg, which has allowed me to gain substantial knowledge and expertise in educating young adolescents. My years of teaching have vastly improved my teaching abilities. I also believe that my friendly personality and calm temperament are very harmonious with the requirements of a good teacher. My communication and interpersonal skills, which are useful during interactions with students, parents and administrators.

With appropriate preparation, I can teach basic Chemical Engineering courses like Environmental Engineering, Chemical Reaction Engineering, Mass Transfer Operations, Separation Processes, Chemical Engg Thermo Dynamics & Process Dynamics & control.

Being a teacher, the responsibilities included preparing and guiding weekly review sessions; designing and grading weekly assignments, midterm, and the final exam; as well as answering student queries during office hours. It was very satisfying to see students' confidence, understanding, and excitement grow as they understood the various concepts being taught. Many times, in teaching an introductory level course, one tends to forget that the concepts and ideas that we find obvious are very new to the students. My teaching feedback was extremely favorable (4 out of 5 scales) as given by the students.

My dedication to teaching goes beyond the classroom. A successful teacher not only contributes knowledge but also inspires his students to be independent learners. Contributed to my various research backgrounds; I believe that I will be a valuable addition to the

department's teaching assets. I am comfortable teaching a variety of fundamental courses in chemical engineering/sciences not limited to the above-mentioned.

Education aims to develop an ability to think logically and independently, to be able to critically analyze ideas and think beyond the obvious. This requires patience, dedication, and hard work on the part of the students as well as the advisor. As an adviser, my ambition would not only be to prepare my students to answer the questions of today, but also to ask the ones that might happen tomorrow.

Teaching interests: I am quite comfortable in teaching chemical engineering core subjects such as chemical reaction engineering, mass transfer operations and fluid mechanics. I would like to frame and teach the following courses that are in line with my research expertise and interdisciplinary subjects such as Optimization techniques of chemical processes, Membrane technology and pharmaceutical technology.

Research Plans/Statement/Goals:

Research is the search of new things which is useful for the society and environment, as an educator i am always focus on problems related to the nearby environment and try to solve with simple solutions, though i have got less opportunities to do the research, i committed to do the research with the available equipment and able to guide some of the projects in diversified areas.

I believe that an active researcher in me is useful for organization, at a large to the environment at large to the globe. The proof of active research can be seen from guided projects and publications listed below. I have done my research work on "Studies on Biosorption of heavy metal ions (Cd^{2+} , Co^{2+} , Ni^{2+} & Zn^{2+}) using marine macro-Algae Sargassum Cinereum & Ulva Lactuaca". In the next five years I would like to submit a research proposal to funding agencies. Project that will allow me to develop publications in peer reviewed journals, to develop a new network of collaborators including UG, PG and PhD scholars.

My recent publication activity has been approximately three SCI(E) journal papers annually and a similar number of abstracts, and I plan to maintain that approximate level of activity during the next 5 yr. period. I plan to maintain my active role in Institute activities. I plan to present my work at national meetings at least once a year on average. It is my hope that over the next five years I will have developed a good team in my area of research work. I would like to guide Ph. D scholars on recent advances in the separation of toxic metal ions from an aqueous solution, which is my area of work.

Research Publications in peer reviewed journals (15+24=39)

LIST OF SCI/SCIE/ESCI INDEXED JOURNALS (15)

1. G.S.Balakrisnan, Baburao Gaddala, S.Sundaram, M.A.Rifaya, M.Subramanian, S.M.Sundaram, S.V.Prabhu published research article on “*Optimized Degradation of brilliant green dye in aqueous solution using dextran stabilized Calcium Peroxide Nano particles*” in **Next Materials** XXX (2025) 101233, **ESCI/Scopus(Q3)/WOS, Cite Score=1.9**, Published by Elsevier, October, 2025.
Manuscript Publication Web/URL: <https://www.sciencedirect.com/journal/next-materials>.
DOI Number: <https://doi.org/10.1016/j.nxmte.2025.101233>.
2. Mallaiah, Baburao Gaddala, Muthalagu, Venkateswarlu published research article on “*Experimental Design and Statistical Modelling of bagasse Kraft Pulping Process*” in **Results in Engineering** 27 (2025) 106511, **ESCI/Scopus(Q1)/WOS, I.F=7.9**, Published by Elsevier, July, 2025.
Manuscript Publication Web/URL: <https://www.sciencedirect.com/journal/results-in-engineering>
DOI Number: <https://doi.org/10.1016/j.rineng.2025.106511>
3. Praveen.B, Baburao Gaddala, Sharun.Sonali, Marco, Hussein, R. V. Mangalaraja, V.S.Sikharwar published article on “*Enhancing energy efficiency of industrial boiler application by the integration of ground-source heat pumps and photovoltaic-thermal solar water collectors*” in **Case Studies in Thermal Engineering** 73 (2025) 106550, **SCIE/Scopus(Q1)/WOS, I.F=6.4**, Published by Elsevier, June, 2025.
Manuscript Publication Web/URL: <https://www.sciencedirect.com/journal/case-studies-in-thermal-engineering>
DOI Number: <https://doi.org/10.1016/j.csite.2025.106550>
4. L.N.Rao, Babu Rao Gaddala, Dadapeer, Anil, C.V.Prasad, Rakesh, Sultan, published a research article on “*Experimental Study on reducing the base sediment and water in crude oil separation*” in **FUEL**, 397 (2025) 135478, published by Elsevier **SCIE/Scopus(Q1)/WOS, I.F=6.7**, April 2025.
Manuscript Publication Web/URL: <https://www.sciencedirect.com/journal/fuel>
DOI Number: <https://doi.org/10.1016/j.fuel.2025.135478>
5. Praveen.B, Baburao Gaddala, Dadapeer, Sharun.M, Jatoth.H, R. V. Mangalaraja published article on “*Innovations in Advanced Material Design for Enhancing Stability In*

Perovskites Solar Cells” in **Silicon** , **SCIE/Scopus(Q2)/WOS, I.F=2.8**, Published by **Springer Nature**, April5(online), 2025.

Manuscript Publication Web/URL: <https://link.springer.com/journal/12633>.

DOI Number: <https://doi.org/10.1007/s12633-025-03314-7>

6. AVSLBharadwaj, R.R.Nayak, J.K.rao,Sampath, **Baburao Gaddala**,Bharat,N.K.Gupta, published research article on “*Environmental life-cycle assessment & green principles in process-intensification: A review of novel catalysts from solid waste*” in **Chemical Engg & Processing: Process Intensification**, 211 (2025),110208, Feb2025. Published by **Elsevier**. **SCIE/Scopus(Q1)/WOS, I.F=3.8**.
Manuscript Publication Web/URL:<https://www.sciencedirect.com/journal/chemical-engineering-and-processing-process-intensification>.
DOI Number: <https://doi.org/10.1016/j.cep.2025.110208>.
7. Sanakran, **Baburao Gaddala**,A.Krishnan, Somanathan, mandal, Karthik,Balaraman, Somanathan published article on “*Magnetic properties & exchange bias behavior of poly phenyl(4-Octyloxy) Phenyl-5(Thiophene-3-YL)2-Naphtholate):Insights from temperature dependent magnetization & EPR Spectroscopy*” in **Buletin of the Chemical Society of Ethiopia**, 39(4), 2025, 791-798. **SCIE/Scopus (Q3)/WOS.IF=1.3**,January 2025. Published by: **Chemical Society of Ethiopia** *Manuscript Publication Web/URL:* <https://www.ajol.info/index.php/bcse>,
DOI Number: <https://dx.doi.org/10.4314/bcse.v39i4.14>.
8. Dhanunjay Kumar Ammisetti, Bharat Kumar Chigilipalli, **Baburao Gaddala**, Ravi Kumar Kottala, Radhamanohar Aepuru,T.Srinivasa Rao, Seepana Praveenkumar and Ravinder Kumar published an article on “*Experimental Investigation and Machine Learning Modeling of Tribological Characteristics of AZ31/B4C/GNPs Hybrid Composites*” in **Crystals**, Nov 2024,14,1007,**SCIE/Scopus(Q2)/WOS,IF=2.4**,Published by **MDPI**.
Manuscript Publication Web/URL: <https://www.mdpi.com/journal/crystals>
DOI Number: <https://doi.org/10.3390/cryst14121007>
9. Praveen Barmavatu, Sonali, M.K.Das, Ahmad Arab Kooshar José Antonio García-Merino, Marco Rosales-Vera, Rolvin Sunil Dsilva, Mangalaraja Ramalinga Viswanathan, **Baburao Gaddala**, Vineet Singh Sikarwar published article on “*Heat transfer characteristics of multiple jet impingements using graphene nanofluid for automobile industry application*” in **Thermal Science and**

EngineeringProgress,55(102993)”,**SCIE/Scopus(Q1)/WOS,I.F=5.1**,Published by **ELSEVIER** Publications. Oct 17, 2024.

Manuscript Publication Web/URL: <https://www.sciencedirect.com/journal/thermal-science-and-engineering-progress>.

DOI Number: <https://doi.org/10.1016/j.tsep.2024.102993>

10. Baburao Gaddala, Krishnasamy Vimala Devi,B.Vivekanandan, Venkatesa Prabhu Sundramurthy, M.Hariprabhu,S.Mayakannan,Shine Kadaikunnan,Jamal M.Khaled published article on “*Evaluation of Detoxification Performance of Pithecellobium dulce Seed Pod Powder upon Acid Treatment: Removal of Reactive Red 195-A Dye and Kinetic Analysis*”. **Zeitschrift fur Physikalische Chemie** (International Journal of Research in Physical Chemistry & Chemical Physics),ISSN:2196-7156,**SCIE/Scopus(Q2)/WOS,I.F=3.0**,,Publishedby **De Gruyter** (O)Sept,2024.

Manuscript Publication Web/URL:

https://www.degruyter.com/journal/key/zpch/html?lang=en&srsltid=AfmBOoo9RdNURBxw12oft8ROAhUnYHPRnrokGu6ouW_KrBk7cpL3NG0C

DOI Number: <https://doi.org/10.1515/zpch-2024-0879>,

11. Solomon Geberemeskel Weldearegay, Baburao Gaddala,Eskindir Getachew Fentie, Venkatesa Prabhu Sundramurthy & L.Srimathi Priya published article on “*Valorization of waste prickly pear peels: optimization for pectin extraction, characterization, and development of edible film*”, **Biomass Conversion & Biorefinery**, EISSN:2190-6823,**SCIE/Scopus(Q2)/WOS,I.F=3.6**,Published by **Springer**, June 20, 2024. *Manuscript*

Publication Web/URL: <https://link.springer.com/journal/13399>

DOI Number: <https://doi.org/10.1007/s13399-024-05833-6>

12. Baburao Gaddala, Sumanth Ratna Kandavalli, Giri Raghavendran, Agiladevi Sivaprakash, Revathi Rallabandi, Venkatesa Prabhu Sundramurthy, Mayakannan Selvaraju, Mohanasundaram Sugumar published article on “*Exploring the impact of hybridization on green composites: pineapple leaf and sisal fiber reinforcement using poly (furfuryl alcohol) bio-resin*”. **Zeitschrift fur Physikalische Chemie** (International Journal of Research in Physical Chemistry & Chemical Physics),EISSN:2196-7156,**SCIE/Scopus(Q2)/WOS,I.F=3.0**,Published by **De Gruyter** (O) April 30, 2024.

Manuscript Publication Web/URL:

https://www.degruyter.com/journal/key/zpch/html?lang=en&srsIid=AfmBOoo9RdNURBxw12oft8ROAhUnYHPRnrokGu6ouW_KrBk7cpL3NG0C

DOI Number: <https://doi.org/10.1515/zpch-2024-0772>.

13. Naveen Prasad, Rakesh Namdeti, **Gaddala Baburao**, Doaa Salim Musallam Samhan Al-Kathiria, Uma Reddy Mekaa, Khalid Mahad Ali Tabooka, Arlene Abuda Joaquina published article on “*Central composite design for the removal of copper by an Adansonia digitata*”. **Desalination and Water Treatment**, 317, Feb (2024) 100164, EISSN:1944 3986, **SCIE/Scopus(Q3)/WOS, I.F=1.0**. Published by Elsevier Ltd.

Manuscript Publication Web/URL:

<https://www.sciencedirect.com/journal/desalination-and-water-treatment>

DOI Number: <https://doi.org/10.1016/j.dwt.2024.100164>.

14. J. Iyyappan, **Baburao Gaddala**, R.Gnanasekaran, M.Gopinath, D.Yuvaraj, Vinay Kumar published article on “*Critical review on wastewater treatment using photo catalytic advanced oxidation process: Role of photocatalytic materials, reactor design & kinetics*”. **Case Studies in Chemical and Environmental Engineering**, Volume9,(2024) 100599, **SCIE/Scopus(Q1)/WOS, I.F=7.9**, Published by Elsevier r Ltd. available online Dec (2023).

Manuscript Publication Web/URL: <https://www.sciencedirect.com/journal/case-studies-in-chemical-and-environmental-engineering>

DOI Number: <https://doi.org/10.1016/j.cscee.2023.100599>

15. K.Kumar, M.K.Prasad, **G.BabuRao**, M.Sudhakar, J.Sivajyothi, T.Satish, Ch.V.R.Murthy published article on “*A fortunate marine algae biomass, Sargassum cinereum for removal of Pb(II): Studies on thermodynamics, kinetics & characterization*”, **Desalination & Water treatment**, May, 2018, vol.116, PP1-8 (ISSN1944-3994/1944 3986). **SCIE/Scopus(Q3)/WOS, I.F=1.0**. **Desalination Publications**. I.F=1.273.

Manuscript Publication Web/URL: <https://www.sciencedirect.com/journal/desalination-and-water-treatment> *DOI Number:* <https://doi.org/doi:10.5004/dwt.2018.22544>

LIST OF SCOPUS INDEXED JOURNALS (24)

1. **Babu Rao Gaddala**, Rakesh Namdeti published a review article on *Development of an eco-friendly biodegradable plastic from various biomass materials and its characterization: A*

review in *Research Journal of Chemistry and Environment*, **Scopus (Q4)**, Volume 29, Issue 10, Pg.142-147, October 2025. Published by **World Research Associations**.

Manuscript Publication Web/URL:

[https://worldresearchersassociations.com/Archives/RJCE/Vol\(29\)2025/October%202025/Development%20of%20an%20eco-friendly%20biodegradable%20plastic.aspx](https://worldresearchersassociations.com/Archives/RJCE/Vol(29)2025/October%202025/Development%20of%20an%20eco-friendly%20biodegradable%20plastic.aspx).

DOI Number: <https://doi.org/10.25303/2910rjce1420147>.

2. Doaa, Babu Rao Gaddala, Noor, Saikat, Rambabu, Kavitha, L.N.Rao, & Rakesh, published a review article on “*Harnessing Membrane fouling prediction and control using AI and Machine learning: A Comprehensive review*” in *Journal of Environmental and Earth Sciences*, (ISSN Online: 2661-3190), **Scopus (Q4)**, Volume 07, Issue 06, June 2025. Publisher **Bilingual Publishing Group**.

Manuscript Publication Web/URL: <https://journals.bilpubgroup.com/index.php/jees>

DOI Number: <https://doi.org/10.30564/jees.v7i6.8630>

3. Doaa, Babu Rao Gaddala, Noor, L.N.Rao, Rambabu, Saikat, Dadapeer & Rakesh, published a review article on “*Harnessing Sustainable Agricultural Practices in Dhofar region of Oman: Balancing Productivity and Environmental Impact*” in *Journal of Environmental and Earth Sciences*, (ISSN Online: 2661-3190), **Scopus (Q4)**, Volume 07, Issue 06, June 2025. Publisher **Bilingual Publishing Group**.

Manuscript Publication Web/URL: <https://journals.bilpubgroup.com/index.php/jees>

DOI Number: <https://doi.org/10.30564/jees.v7i6.8601>

4. L.N.Rao, Rohini, K.P, Noor Qahoor, Babu Rao Gaddala, Subbarao, Kavitha,, Dadapeer & Rakesh, published a review article on “*Harnessing Avicennia Marina Leaves for Dye Contaminant Removal: An RSM and ANN-Based Study*” in *Journal of Environmental and Earth Sciences*, (ISSN Online: 2661-3190), **Scopus (Q4)**, Volume 07, Issue 05, May 2025. Publisher **Bilingual Publishing Group**.

Manuscript Publication Web/URL: <https://journals.bilpubgroup.com/index.php/jees>

DOI Number: <https://doi.org/10.30564/jees.v7i5.8590>

5. Rakesh Namdeti, L.N.Rao, Gaddala Babu Rao, Anil, C.V.Prasad, Dadapeer, Doaa Salim Al Kathiri; P.M. Prema, published a review article on “*Membrane Bioreactors: Integration of Biological Processes with Membrane Technology for Wastewater Treatment*” in *Journal of Membrane Science & Research* 11 (2025) 2040886, published by **FIMTEC & MPRL** **Scopus(Q2)**, SJR=0.26, March 2025.

Manuscript Publication Web/URL: <https://www.msjournal.com/>

DOI Number: [10.22079/jmsr.2025.2040886.1677](https://doi.org/10.22079/jmsr.2025.2040886.1677)

6. Rakesh Namdeti, Gaddala Babu Rao, L.N.Rao, Prasad, dadapeer, Anil, Lakshmi, Prema published a review article on “*Advances in Non-Biological Membranes: Structural Innovations and Functional Optimization for Industrial Applications*” in *Journal of Membrane Science & Research* 11 (2025) 2045294, published by FIMTEC & MPRL Scopus(Q2), SJR=0.26, Mar25.
Manuscript Publication Web/URL: <https://www.msjournal.com/>
DOI Number: [10.22079/jmsr.2025.2045294.1684](https://doi.org/10.22079/jmsr.2025.2045294.1684).
7. Milind Kumar, Suganya, S.C.Kishore, Aravind, Kishore, Jyothi, Baburao Gaddala, Manoj published article on “*Design of hybrid catalysts for the dual removal of pharmaceuticals and heavy metals*” in *Oxidation Communications*, 47, No 4, 668–677, December (2024), Scopus(Q4), I.F=0.48, Published by Scientific Bulgarian Communications.
Manuscript Publication Web/URL: <https://scibulcom.net/en/journal/0209-4541>.
DOI Number: <https://scibulcom.net/en/article/nShVDJrldjtygDRyKRnf>
8. Yuvaraj, J. Bevin, A. Premkumar, S. Suji, S. Balachandran, R. Gnanasekaran, Baburao Gaddala published article on “*Utilizing modern techniques and omics technologies to enhance stress tolerance in finger millet, with recent findings: A review*” in *Food Chemistry Advances*, Volume 6, March 2025, 100886, Scopus(Q3), SJR=0.633, Pages 292-305. Published by Elsevier.
Manuscript Publication Web/URL: <https://www.sciencedirect.com/journal/food-chemistry-advances> *DOI Number:* <https://doi.org/10.1016/j.focha.2025.100886>.
9. Rakesh Namdeti, Gaddala Babu Rao, Nageswara Rao, L. Noor Qahoor, Naveen, B, Uma reddy, M, Prema, Doa Alkathiri, Muyad Qatan, Hafidh Alawi published research article on “*Enhanced Lead and Zinc Removal via Prosopis Cineraria Leaves Powder: A Study on Isotherms and RSM Optimization*” in *Journal of Environmental and Earth Sciences*, Vol.07, Issue01, Jan2025”, Scopus(Q4), SJR=0.15, Pg. 292-305. Publisher Bilingual Publishing Group.
Manuscript Publication Web/URL: <https://journals.bilpubgroup.com/index.php/jees>
DOI Number: <https://journals.bilpubgroup.com/index.php/jees/article/view/7474>.
10. Rakesh Namdeti, Doaa Al-Kathiri; Gaddala Babu Rao; Abdul Hakim Khan; Hamid Awadh Mustahil Alshehri published a review article on “*A Critical Review of Smart Materials for Efficient Water Purification: Towards Sustainable Clean Water Solutions*” in *Journal of Membrane Science & Research*, Vol 11, issue1, Jan(2025) 2040634, published by FIMTEC & MPRL Scopus(Q2), SJR=0.26.
Manuscript Publication Web/URL: <https://www.msjournal.com/>
DOI Number: [10.22079/jmsr.2024.2040634.1674](https://doi.org/10.22079/jmsr.2024.2040634.1674)

11. Charudatta Dattatraya Bele, Basavaraj Patil, Dattatreya P. Mankame , Baburao Gaddala, Nidhi Jindal, Gauri Jindal published an article on “*Applied Mathematics in the Design of Efficient Algorithms for Big Data Analytics*” in *Nanotechnology Perceptions*, 20, No. S14 (2024)806-819, Scopus(Q4), SJR=0.12,ISSN:1660-6795,November,2024,Pages 93-102.Published by Collegium Basilea.
Manuscript Publication Web/URL: <https://nano-ntp.com/index.php/nano>
DOI Number: <https://doi.org/10.62441/nano-ntp.v20iS14.51>.
12. Rakesh Namdeti, Gaddala Babu Rao,L.N.Rao, M.A.A.Qatan, D.S.M.S Al-Kathiri, Lakhayar Amer Al Amri,Noor Mohammed Said Qahoor, Arlene, published a review article on “*Innovative Approaches in Water Decontamination: A Critical Analysis of Biomaterials, Nanocomposites, and Stimuli-Responsive Polymers for Effective Solutions*” in *Journal of Environmental&EarthSciences*, Vol.07,Issue01,January2025”, Scopus(Q4), SJR=0.15, Pg. 93-102.Published by Bilingual Publishing Group.
Manuscript Publication Web/URL: <https://journals.bilpubgroup.com/index.php/jees>
DOI Number: <https://journals.bilpubgroup.com/index.php/jees/article/view/7476>
13. Baburao Gaddala, Suprava Ranjan Laha, Khalid Nazim Abdul Sattar, S.Jagan Mohan, M. Siva Sailaja, Abhijeet Das published article on “*Edge Computing &Advanced data analytics in monitoring chemical pollution effects on marine life*” in *Bulletin of Pure & Applied Sciences Zoology (Animal Science)*, Vol.43B,No.2S, Scopus(Q4)/WOS,IF=6.994 (Cosmos)July-Dec2024.P.1067-1079.ISSN: 0970-0765 / 2320-3188,Published by BPAS, Sept 15, 2024.
Manuscript Publication Web/URL: <https://bpasjournals.com/zoology/index.php/journal>
DOI Number: <https://bpasjournals.com/zoology/index.php/journal/article/view/334>.
14. Baburao Gaddala, Mohamed Suhail M, Ambika S, G. V. Ramana, Atowar ul Islam, K Venkata Ramya published article on “*Artificial Intelligence in ecotoxicology: predictive models for chemical impact on wildlife*”. *Bulletin of Pure and Applied Sciences Zoology (Animal Science)*, Vol.43B, No.2S, Scopus(Q4)/WOS, I.F=6.994(Cosmos)July-Dec2024. P.43-54.ISSN: 0970-0765 / 2320-3188,Published by BPAS Publications. Aug 30, 2024.
Manuscript Publication Web/URL: <https://bpasjournals.com/zoology/index.php/journal>
DOI Number: <https://www.bpasjournals.com/zoology/index.php/journal/article/view/231>.
15. J. Iyyappan, Baburao gaddala, G.Baskar,M. Gopinath, R. Hanisha,A.M.lakshmi published article on ”*Strategies for improving lipid production from various renewable residues using modern computational approaches – A review*”, *International Journal of Pharmacy*,

Research & Technology, E-ISSN:2250-0944, ISSN:2250-1150, **Scopus(Q4)/WOS**, **Advanced Scientific Research** (Publisher), Vol. 14 No. 1, **January (2024)**.

Manuscript Publication Web/URL: <https://www.ijprt.org/index.php/pub/article/view/230/210>

DOI Number: <https://doi.org/10.31838/ijprt/14.01.06>.

16. Ravi Kumar M, Wondalem Misganaw G, Sagar, Lakshmi, Ashager Shimelash Admasu, King P, Vijay M, **Baburao Gaddala**, published article on “*Investigation of Characterization for Biosorption of Congo Red from Textile Wastewater Using Spathodea Campanulata Leaves: FTIR, SEM, and XRD Analysis*”. *Chemical Methodologies*, 2023,7(8),605-612. **Sami Publishing Company**. **Scopus(Q3)/WOS/I.F=3.5**

Manuscript Publication Web/URL: https://www.chemmethod.com/article_175851.html.

DOI Number: <https://doi.org/10.22034/CHEMM.2023.395359.1676>

17. **G. BabuRao**, M.Krishna Prasad, Ch.V.R.Murthy, K.Kishore Kumar, published article on “*Potential use of molecular sieves for the removal of Ni²⁺ Metal Ion: Kinetics, Isotherms, and Thermodynamic Studies*”, *Journal of the Institution of Engineers (India): Series E, Chemical and Textile Engineering*, **Scopus(Q4)**, October, 2016, Volume 97, Issue 2, pp183–192 (**Springer Publishers**) (ISSN 2250-2483)..

Manuscript Publication Web/URL: <https://link.springer.com/journal/40034>

DOI Number: <https://doi.org/10.1007/s40034-016-0087-3>

18. A.AppaRao, **G. BabuRao**, M.Krishna Prasad published article on “*Estimation of energy generation from municipal solid waste a case study of Bobbili city, Andhra Pradesh*”, *International Journal of Current Research*, **Scopus(Q4)**, Vol. 8, Issue, 09, pp.38731-38738, September, 2016. (SJIF I.F:6.226, Index Copernicus Value:6.24) (ISSN:0975-833X).

Manuscript Publication Web/URL: <https://www.journalcra.com/>

DOI Number: <https://www.journalcra.com/article/estimation-energy-generatation-municipal-solid-waste-case-study-bobbili-city-andhra-pradesh>.

19. **G. BabuRao**, M.Krishna Prasad, K.Kishore Kumar, Ch.V.R.Murthy published article on “*Removal of cadmium (II) from aqueous solutions using marine macro algae as the sorbing biomass: isotherms and spectroscopic characterization*”, *Rasayan Journal of Chemistry*, Volume 9, No. 3, pp.373-385, July-September, 2016, (Indexed in **Scopus(Q2)** (Elsevier Bibliographic Databases)) (Global I.F:1.350, H-Index:14) (ISSN 0974-1496).

Manuscript Publication Web/URL: <https://rasayanjournal.co.in/>

DOI Number: https://www.rasayanjournal.co.in/admin/php/upload/40_pdf.pdf.
<https://rasayanjournal.co.in/archiveissue.php?issueid=5>.

20. **G. BabuRao**, M.Krishna Prasad, K.Kishore Kumar published article on “*Biosorption of Copper (II) from Aqueous Solution using Oscillatoria. Splendida*”, **International Journal of Chem Tech Research**, Volume 9, No.3, pp.290-296, April, 2016. (Indexed in **Scopus(Q4)** (Impact Factor:0.515) (ISSN0974-4290). **Sphinx Knowledge House**(Publisher).
Manuscript Publication Web/URL: <https://sphinxesai.com/chemtech.php>
DOI Number: https://sphinxesai.com/2016/ch_vol9_no3/ch01.htm.
21. **G. BabuRao**, M.Krishna Prasad, Ch.V.R.Murthy published article on “*Cobalt (II) removal from aqueous solutions by adsorption onto molecular sieves*”, **International Journal of Chemical Sciences**, Volume 13, No.4, pp.1893-1910, December, 2015. (Indexed in **Scopus(Q4)**, (Impact Factor: 0.16) (ISSN 0972-768X). **Sadguru Publications**.
Manuscript Publication Web/URL: <https://www.tsijournals.com/journals/international-journal-of-chemical-sciences.html>
DOI Number: <https://www.tsijournals.com/journals/archive/tsijcs-volume-13-issue-4-year-2015.html>.
22. **G. BabuRao**, M.Krishna Prasad,Ch.V.R.Murthy published article on “*Development of modeling equations for the removal of Nickel (II) from aqueous solutions*”, **International Journal of Chem Tech Research**,Vol8,No.11,pp.200-210,December,2015.(Indexed in **Scopus(Q4)**),(I.F:0.515)(ISSN 0974-4290).**Sphinx Knowledge House**(Publisher).
Manuscript Publication Web/URL: <https://sphinxesai.com/chemtech.php>
DOI Number: https://sphinxesai.com/2015/ch_vol8_no11/ch01.htm.
23. G. Kalyani, **G. BabuRao** B. VijayaSaradhi,Y. Prasanna Kumar published article on “*Biosorption Isotherms of Fluoride from Aqueous Solution on Ulva fasciataSP.-A Waste Material*”, **International Journal of Applied Environmental Sciences(IJAES)**, Volume 4, Number 2, pp. 177–186 ,February 2009.(Indexed in **Scopus(Q4)** (ISSN 0973-6077).
Manuscript Publication Web/URL: <https://www.ripublication.com/ijaes.htm>
DOI Number: <https://www.ripublication.com/Volume/ijaesv4n2.htm>.
24. G.Kalyani, **G. BabuRao** B. VijayaSaradhi,Y. Prasanna Kumar published article on “*Equilibrium and kinetic studies on biosorption of zinc onto Gallus Domesticus shell powder*”, **ARNP Journal of Engineering and Applied Sciences(ARNP-JEAS)**, Volume 4, No.1, pp.39-49, Feb 2009.(Indexed in **Scopus(Q4)** (ISSN 1819-6608).
Manuscript Publication Web/URL: <http://www.arnpjournals.com/jeas/>
DOI Number: https://www.arnpjournals.com/jeas/volume_02_2009.htm.

Book Author (1):

1. **Dr. Baburao Gaddala** has been authored a book titled on “*Sustainable Power Principles and innovations in Renewable Energy*”. Published by: A2Z EDULEARNINGHUB LLP. ISBN: 978-81-986300-3-2. Published on March 2025.
Amazon link: <https://www.amazon.in/dp/B0F3G2H3RN>

Book Chapter (2):

1. **G.BabuRao**, P.Satya sagar, M.Krishna Prasad published a book chapter(26), Page number 281-291 on “*Bio sorption of Copper from Aqueous Solution Using Oscillatoria splendida*” in Chemical & Bioprocess Engineering:Trends&Developments, Apple Academic Press, Inc, **CRC Press Taylor & Francis Group**, April 2015. International Standard Book Number-13: 978-1-4987-0581-3 (eBook - PDF). <https://www.routledge.com/Chemical-and-Bioprocess-Engineering-Trends-and-Developments/Sonawane-Setty-Sapavatu/p/book/9781774632086>.
2. R. Srinivasan, K.V.Devi, D.W.Praveenraj, S. Venkatasuvrananian, K. Subramani, V. S. Prasanth, and **Babu Rao Gaddala**, published a book chapter(11), Page number 136-154 on “*IoT-Driven Dynamic Behavior Intervention Model for Sustainable Hygiene Practices: Insights from Household Water Consumption*” in Artificial Intelligence & its Applications in First International Conference, ICAIA 2023, Pune, India, December 18–19, 2023, Proceedings, Part II, **Springer Nature** Switzerland AG, **March 2025**, ISSN 1865-0929, ISSN 1865-0937 (electronic), Communications in Computer and Information Science 2308, ISBN 978-3-031-84393-8, ISBN 978-3-031-84394-5 (eBook). <https://doi.org/10.1007/978-3-031-84394-5>.

Book Editor (2):

1. I have been served as one of the **Editorial board members** for the Edited book titled on “*Emerging Paradigms in Science, Engineering & Management: Vol. 2*” published by A2Z Edu-Learning Hub, LLP, has been published on Feb.2025 on Amazon with ISBN: 978-81-986300-4-9. Amazon link : <https://www.amazon.in/dp/B0F6YTZGT2>
DOI: <https://doi.org/10.5281/zenodo.14948503>
2. I have been served as one of the **Editorial board members** for the Edited book titled on “*The Interdisciplinary Impact of AI in Engineering & Management*” published by A2Z Edu-Learning Hub, LLP, has been published on April.2025 on Amazon with ISBN:978-81-985123-9-0. Amazon link : <https://www.amazon.in/dp/B0DYW8NGHD>.
DOI: <https://doi.org/10.5281/zenodo.15314187>

Number of Patents Published/Filed/Granted: 11

S.N	Application No	Title of the Patent	Date of filling/Publication	National/ International	Status
1	202541042996 A	A hybrid solar energy system for simultaneous generation of hydrogen, electricity and desalinated water.	03-05-2025 & 30-05-2025	National	utility patent published
2	445294-001	IOT-Enhanced biofuel production monitoring system for sustainable energy management.	23-01-2025 & 30-04-2025.	National	Granted (Design)
3	443930-001	AI based Carbon Pollution Detecting Device.	12-01-2025 & 27-03-2025.	National	Granted (Design)
4	1228605	Biodegradable Composite Materials for Sustainable Packaging.	30-11-2024.	International (Canada)	Copy right (Certificate of Registration)
5	202024105759	System for Synthesizing an Activated Hydro Char-Based Phase Change Composite.	07-10-2024, 04-11-2024 & 12-12-2024.	International (German)	Utility Process Model (Certificate of Registration)
6	1227850	Nano structured Phase Change materials for improved heat transfer.	02-11-2024	International (Canada)	Copy right (Certificate of Registration)
7	6399613	Aerodynamic Solar Roof Design for Electric Vehicle solar Panel Energy Generation Monitoring Device	Registration Date:23/10/2024 Grant date:29-10-24, Publication date:30-10-2024 & Renewal date:23-10-29.	International (UK)	Granted (Design)
8	1227617	Agile Project Management: Techniques for Enhancing Efficiency and Productivity.	23-10-2024.	International (Canada)	Copy right (Certificate of Registration)

9	6380205	Solar Panel Energy Generation Monitoring Device	Reg. Date:23/07/2024 Grant date:30-07-24, Publication date:31-07-24 & Renewal date:23-07-29.	International (UK)	Granted (Design)
10	202141037976 (Patent No: Temp/E1/4272 4/2021-CHE)	A novel method for nano-carbon energy-storage material with specific high energy.	22/08/2021	National	utility patent published
11	202141037979 (Patent No: Temp/E1/4271 7/2021-CHE)	Heterolayer-Based Charge Storage Devices for Bio Electronic Applications.	22/08/2021	National	utility patent published

International/National Conf/Workshops/Seminars paper Presentations:(11 I+8N)

1. Jyoti, **G.BabuRao**, mahadeojadhav, thilagam, savarammythreya, sivakumar was presented a paper on “Evaluating Erosion wear Behavior of Polymer Matrix Nanocomposites with Varied Chemical Composition using Artificial Neural Network.” in two days 3rd *International conference(Online, SSRN Elsevier)* and *Paper Publication Proceedings in Optimization Techniques in the Field of Engineering(ICOFE-2024)* Organized by the department of CSE at KSRCOE, TN & Debre Tabor University, Ethiopia held on 22-23rd Oct 2024. <https://ssrn.com/abstract=5083725>. <https://dx.doi.org/10.2139/ssrn.5083725>.
2. Maryam Ahmed Al-Rawahi, Bayan Sulaiman, Saba Mansoor Al Abri, Mayan Ali Alsaidi, Maryam Juma Al-Khusibi, Sundus Thani Alhabsi, **G.BabuRao**, was presented a paper on “Development of eco-friendly biodegradable plastic from various biomass materials & its characterization: A review” in two days *International conference(Hybrid mode)* on International students research conference, Organized by The German University of Technology in Oman (GUTech), Muscat, Oman held on 24-25th April 2024.
3. Moath Al-Mawali, Amjad, Abdul malik, Mohammed, **G.BabuRao**, was presented a paper on “Studies on coating methods for solar panel protection” in two days *International conference(Hybrid mode)* on International students research conference, Organized by The

German University of Technology in Oman (GUTech), Muscat, Oman held on 24-25th April 2024.

4. Farah and **G.BabuRao**, was presented a paper on “**Mathematical Modelling of batch reactor for the saponification reaction at different temperatures**” in “PRANATHI” two days *International conference (Hybrid mode)* on Robotics and Automation in pharma manufacturing: Impact on pharma 4.0, Organized by Department of Pharmaceutical Engineering, BVRITN, Telangana, India held on 16-17th February 2023.
5. Farouq, Ibrahim and **G.BabuRao**, was presented a paper on “**Environmental Impact Assessment on date palm wastes composting in Oman**” in 2022 Sustainability and Resilience *International Conference (Online)*: Design Innovation (SRC) Organized by University of Bahrain, Sakhir – Kingdom of Bahrain held on 1st-2nd November 2022. 978-1-6654-9160-0/22/ ©2022 IEEE.
6. **G. BabuRao**, Ibrahim Al-Siyabi was presented a paper on “**Removal of dissolved Oxygen from Oil and gas produced water**” and Paper **Proceedings** in National conference on Recent Trends in Chemical, Petroleum, Food, Textile & Allied Technologies for Sustainable Development (NCRTCPT-2019) Organized by the Dept. of Chemical Engg at Vignan’s University, Guntur, India held on 16-17th August 2019.
7. **G.Babu Rao**, was presented a paper on “**Industrial Ecology-Need for India to implement the paradigm shift**” in DST Sponsored two day National Seminar on Industrial Ecology –Interdisciplinary Perspectives & Opportunities (IEIPO-15) Organized by Dept. of Chemical Engg, GMRIT, Rajam, India held during 20th -21st March, 2015.
8. **G.BabuRao**, was presented a paper on “**Equilibrium & Kinetic studies of Nickel (II) over Molecular Sieves**” in *International Conference* on Effects of Emissions & Effluents on Environment (EEEE-2014), Organized by A.U College of Engg (A), Andhra University, Visakhapatnam, Andhra Pradesh, India held during 30th June & 1st July, 2014.
9. **G.Babu Rao**, was presented a paper on “**Equilibrium studies on Adsorption of Cobalt (II) over Molecular Sieves**”, in *International Conference* on Environmental Biotechnology and Bio-diversity (A gateway to Sustainable Future) (EBIO-2013), Organized by AU College of Engg (A), Andhra University, Visakhapatnam, Andhra Pradesh, India held during 3rd - 4th March, 2014.

10. **G.BabuRao**, was presented a paper on “**Minimization of Solid Waste**”, in National Seminar on Solid Waste Management: Issues & Challenges”, Sponsored by AICTE (New Delhi), Organized by GIET, Gunupur, ODISHA, held during 24th& 25th August, 2013.
11. **G.Babu Rao, P.satyasagar** “**Kinetic Study of Bio-degradation of Phenol using SaccharomyceCerevisiae**” in Indian Chemical Engineering Congress” Paper **Proceedings** in *CHEMCON-2012(International Conference)*”, conducted by Department of Chemical Engineering, Dr.B.R.Ambedkar National Institute of Technology, Jalandhar-144011, held during 27-29th December 2012.
12. **G. BabuRao, P.SatyaSagar, Dr.M.KrishnaPrasad** “**Multiple Effect Evaporation** “Paper **Proceedings** in National conference on Recent Trends in Green Processing Strategies Organized by the Department of Chemical Engineering at SVU, Tirupati, on 29th March 2012.
13. **G. BabuRao, P.SatyaSagar, Dr.M.KrishnaPrasad** ,”**Phenol Degradation in a packed bed Bioreactor using Immobilized Glass Beeds**” in Indian Chemical Engineering Congress” Paper **Proceedings** in *CHEMCON-2011(International Conference)*” conducted by Department of Chemical Engineering, M.S.R.I.T. Bangalore, held during 27-29th December 2011.
14. **G. BabuRao, P.SatyaSagar, Dr.M.KrishnaPrasad**, was presented a paper on”**Evaluation of Critical Pitting potential of Aluminum alloy 6061 in marine Environment**” in Indian Chemical Engineering Congress”*CHEMCON-2010(International Conference)*”, conducted by Department of Chemical Engineering, Annamalai University, Tamilnadu, held during 27-29th December 2010.
15. **G. BabuRao, G.kalyani, P.Kalpana**, was presented a paper on “**Removal of Zinc metal from effluent water using a Biosorbent**” in APPCB Sponsored Two day National workshop SDEC Organized by GMRIT, Rajam, held during 26-27th March 2010.
16. **G. BabuRao** was presented a paper on “**Effluents of fertilizer industry: Impacts and remedies**” in National Conference on Chemical Process Plants – Impacts on Environment organized by School of chemical Engineering, Vignan University, Vadlamudi, Guntur, held during 22nd& 23rd March 2010.
17. Y.Prasannakumar, K.Kumaraswamy, B. Sumalatha, **G. BabuRao** and P.King, “**Sorption studies of Zinc ions onto dead biomass of coffee industry waste**” Paper **Proceedings**

in *CHEMCON -2009 (International Conference)*, Organized by Andhra University, Visakhapatnam, held during 27-29th December, 2009.

18. **G. BabuRao**, was presented a paper on “**Simulation studies on Packed Tray column using Binary and multi-component systems**” in AICTE Sponsored Two day National Seminar on Novel Separation Techniques Organized by GMRIT, Rajam, held during 26-27th June, 2009.
19. **G. BabuRao**, A. Prasad, M. Nagaraju, S. Sarveswararao & P. Rajendra Prasad, was presented a paper on “**Biosorption of cd(II) using cocosnucifara.L**” in National Level Conference CHEMVIGOR-08 organized by Vignan’s College of Engineering Vadlamudi, Guntur (Dt) held during 15th March 2008.

FDP/SDP/STTP/STC attended: Total:14 (17 Weeks)

1. Attended and actively participated in one-week AICTE recognized **online FDP** on “**Nano Technology Developments and challenges**” Organized by Department of Applied Science, **NITTTR Chandigarh**, from 5th -9th May 2025.
2. Attended and actively participated in one week GIAN Course on “**Advanced Process Control (course code:161036B02)**” Organized by Department of Chemical Engineering, NIT, Warangal, held during 12th -17th December, 2016.
3. Attended and actively participated Short Term Training Program on “**Application of Process Simulators in Chemical & Bioprocess Engineering (APSCBE 2016)**” Organized by Department of Chemical Engineering, NIT, Warangal, held during 30th May-3rd June, 2016.
4. Attended and actively participated Short Term Training Program on “**Process Intensification**” Organized by Department of Chemical Engineering, NIT, Warangal, held during 18-20th December, 2015.
5. Attended and actively participated AICTE Sponsored Faculty Development Program on “**Computer Aided Process Engineering & Computational Fluid Dynamics**” Organized by Department of Chemical Engineering, Jagannath Institute for Technology and Management, Paralakhemundi, ODISHA, held during 6-18th May, 2013.
6. Attended and actively participated AICTE Sponsored Short Term Training Program on “**Applications of Chemical Process Simulators in Chemical Engineering**” Organized by the Department of Chemical Engineering, **IIT Madras**, held during 26-30th November 2012.

7. Attended and actively participated AICTE&MHRD Sponsored FDP on “**Modelling and Simulation in Chemical & Environmental Engineering (MSCEE’12)**” Conducted by Department of Chemical Engineering, NIT Calicut, held during 28th May-1st June 2012.
8. Attended and actively participated AICTE Sponsored SDP on “**Clean Process Technologies (CPT2K12)**” Conducted by Department of Chemical Engineering, GMRIT Rajam, held during 2nd April to 14th April 2012.
9. Attended and actively participated AICTE Sponsored FDP on “**Modelling and Simulation for Rapid Progress in Chemical Engineering**” Conducted by Department of Chemical Engineering, RVR&JC CE, Guntur, held during 15-16th July 2011.
10. Attended and actively participated AICTE Sponsored short term training program on “**Recent Advances in Multi-Phase Reactors**” conducted by Department of Chemical Engineering, **IIT Delhi**, held during 17-22nd May, 2010.
11. Attended and actively participated AICTE Sponsored short term training program on “**Evolving Challenges in Energy and Environment**” conducted by Department of Chemical Engineering, GMRIT Rajam, held during 19th April to 1st May 2010.
12. Attended and actively participated AICTE Sponsored short term training program on “**CFD for chemical& petrochemical engineers**” conducted by Department of Chemical Engineering, **IIT Guwahati**, held during 8th to 12th June 2009.
13. Attended and actively participated AICTE Sponsored STC on “**Recent Advances in Chemical Engineering & Bio-Process Engineering**” conducted by Department of Chemical Engineering, Vignan’s Engineering College Valdlamudi, Guntur, held during 21st to 24th November, 2007.
14. Attended and actively participated AICTE Sponsored STC on “**Advanced Separation Process**” conducted by Department of Chemical Engineering, Vignan’s Engineering College Valdlamudi, Guntur, held during 21st to 24th November 2005.

Workshops/Seminars /Conference attended: (20)

1. I have attended the 5th student National Symposium Industrial Revolution 5.0 (SNSIR5.0), Conducted by Information Technology Department at the University of Technology & Applied Sciences in Muscat, Sultanate of Oman, held on 1-2 May 2024.
2. Attended and actively participated in one-day workshop on “**Programme review for Mechanical Engineering specializations**” organized by University of Technology & Applied Sciences (Higher College of Technology, Muscat), held on 3rd March 2022.

3. Attended and actively participated in one-day workshop on "**Basics of Chemical Engineering Process Simulation Using DWSIM**" organized by University of Technology & Applied Sciences (Higher College of Technology, Muscat), held on 23rd March, 2022.
4. Attended and actively participated in one-day workshop on "**How to write an effective manuscript**" organized by Arab Open University and Higher College of Technology, Muscat, held on 12th November, 2019.
5. Attended and actively participated in a two-day workshop on "**Empowering Engineering Faculty in Question Paper setting**" organized by GMRIT, Rajam, held during 11th - 12th November, 2016.
6. Attended and actively participated in a two-day workshop on "**Internal Auditor training on Quality Management Systems based on ISO 9001:2015 & ISO 19011:2011**" organized by GMRIT, Rajam, held during 30th -31st March, 2016.
7. Attended and actively participated in DST Sponsored Two-day National Seminar on "**Climate Efficient Process Industries (CEPI-16)**" organized by the department of Chemical Engg, GMRIT, Rajam, held during 4th -5th March, 2016.
8. Attended and actively participated Three-day International workshop on "**Desalination (InDACON-2016)**" organized by Department of Chemical Engg, AUCE (A), A.U, Visakhapatnam, held during 29th-31st January 2016.
9. Attended and actively participated One-day National workshop on "**Cloud and Nano Computing (CNC-2015)**" organized by Centre for Nanotechnology, AUCE (A), A.U, Visakhapatnam, held on December 18th 2015.
10. Attended and actively participated Three-day National workshop on "**Advances in Modeling, Optimization and control of Chemical Process**" organized by Department of Chemical Engg, BVRIT, Narsapur, Hyderabad, held during 28th-30th July 2015.
11. Attended and actively participated in the Two-day National workshop on "**Emerging Trends in Stealth Technology & Applications of Nanomaterials**" organized by Centre for Nano-Technology, AUCE (A), A.U, Visakhapatnam, held during 19th-20th June 2015.
12. Attended and actively participated two-day National workshop on "**Application of Computational Techniques in Chemical & Biochemical Engg**" organized by Department of Chemical & Biotechnology at ANITS, Sangivalasa, and Visakhapatnam, held during 24-25th Feb, 2015.

13. Attended and actively participated Two-day National workshop on "**Engineering Optimization & its applications** " organized by Department of Petroleum & Petrochemical Engg at University College of Engg Kakinada, held during 01-02nd Feb, 2015.
14. Attended and actively participated in the three-day National workshop on "**Advanced Optimization Techniques for Engineering and Management**" organized by the department of ECE, GMRIT, Rajam, held during 5th -7th April 2013.
15. Attended and actively participated in the Five-day National workshop on "**Advances in Separation Processes**" organized by the Department of Chemical Engineering at G. V. P. College of Engineering (A), Visakhapatnam, held during 12th -16th March, 2012.
16. Attended and actively participated two-day National workshop on "**Modern Analytical Techniques for Industry and Environment (MATIE2012)**" organized by the Chemistry Division of Department of Basic Sciences & Humanities & Department of Chemical Engineering and Department of Civil Engineering at GMRIT, Rajam, held during 2nd -3rd March, 2012.
17. Attended and actively participated in the two-day National Conference on "**Go Green with Technology**" at SVCET, Etcherla, and Srikakulam, held during 04-05th March 2011.
18. Attended and actively participated in the two-day National workshop on "**Optimization techniques in engineering**" organized by ECE&EEE Department of GMRIT, Rajam, held during 12th -13th March, 2009.
19. Attended and actively participated in the two-day National workshop on "**Sustainable Environment Management**" organized by Department of Chemical Engineering and Department of Civil Engineering at GMRIT, Rajam, held during 6th -7th March, 2009.
20. Attended and actively participated in a five-day National seminar on "**Manufacturing and characterization issues in Nano tubes**" organized by Department of Chemical Engineering and Department of Civil Engineering at GMRIT, Rajam, held during 2nd -6th February 2009.

Online Webinars attended:

FDP/STTP/STC: 11

1. Attended and actively participated in six-day AICTE sponsored online STTP on "**Industrial Pollution & Control Strategies-Phase-I**" Organized by Department of

Chemical Engineering, Anurag group of Institutions, Ghatkeasr, Telangana State, held during 24th -29th August 2020.

2. Attended and actively participated online international FDP on “**Strategies on writing research paper**” Organized by Dept. of Chemical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai held during 14th -24th August 2020.
3. Attended and actively participated online STTP & hands on training in “**Computational drug design approach**” Organized by Department of biotechnology & IQAC of Karpaga Vinayaga College of Engg & Technology, Chennai held during 10th -12th August 2020.
4. Attended and actively participated online 3 day national level FDP on “**Promoting Critical thinking & Research Paper writing for teachers**” Organized by Dept. of English & foreign languages, MITS Madanapalle, Chittoor held during 3rd -5th Aug, 2020.
5. Attended and actively participated in six day AICTE sponsored online STTP on “**Fostering an Effective Research Environment & Industrial Collaborations in Engineering Education-Phase-I**” Organized by Department of Chemical Engineering, St. Joseph’s College of Engg, OMR, Chennai held during 27th July -1st August, 2020.
6. Attended and actively participated in national level one week online FDP on “**Orienting applications & conceptualized aspects of science & Humanities**” Organized by Department of humanities & Sciences, BITS, Warangal held during 21st -25th July, 2020.
7. Attended and actively participated in five-day online FDP on “**Recent Advances in Chemical Engineering**” Organized by Department of Chemical Engineering, GMRIT, Rajam held during 07th -11th July, 2020.
8. Attended and actively participated in five days online FDP on “**Recent innovations in Chemical Engineering**” Organized by Department of Chemical Engineering, BKIT, BHALKI, Karnataka held during 29th June -03rd July 2020.
9. Attended and actively participated in five-day online FDP on “**Domestic & industrial water & wastewater treatment**” Organized by Department of Chemical Engineering, BVRIT, Narsapur, Telangana State held during 06th -10th June, 2020.
10. Attended and actively participated in three days online FDP on “**Municipal Solid Waste Management during COVID-19 Pandemic**” Organized by Department of Chemical Engineering, Anurag group of Institutions, Ghatkeasr, Telangana State held during 28th -30th May 2020.

Online Workshops attended:(20)

1. Attended and actively participated international e conclave on “**women scientist in science & technology with special reference to biotechnology (IWSC22)**” Organized by Nano & biomaterials association, School of life sciences, B.S.A.R.C.I.S.T Chennai, held on March 8-10, 2022.
2. Attended and actively participated in an online international webinar on “**Model-based Process development of continuous chromatography for antibody separation**” Organized by dept of chemical engineering, SSNCE, Chennai, held on 2nd Sept 2020.
3. Attended and actively participated in an online international webinar on “**Technological Advances in Waste biomass conversion to biofuels**” Organized by department of chemical engineering, SSNCE, Chennai, held on 8th September 2020.
4. Attended and actively participated in an online international webinar on “**Fibrous Silica catalysts for green technologies**” Organized by department of chemical engineering, SSNCE, Chennai, held on 9th September 2020.
5. Attended and actively participated in an online webinar on “**Sustainable treatment options for liquid waste management**” Organized by Department of Civil Engineering, PCCOE, Nigdi, Pune held on 29th August 2020.
6. Attended and actively participated in an online webinar on “**Catalysis & its applications in pollution abatement-smart solutions**” Organized by Department of Chemical Engineering, Dr.S.S.Bhatnagar U.I.C.E.T,Panjab University, held on 28th August, 2020.
7. Attended and actively participated in an online webinar on “**NAAC Assessment & Accreditation Process & Awareness about NEP 2020**” Organized by IQAC, SPMV, Tirupati, held on 26th August 2020.
8. Attended and actively participated online webinar on “**Basic Oil and Gas field development life cycle**” jointly organized by department of petroleum engineering, IIT(ISM) Dhanbad, department of Chemical Engineering GMRIT, Rajam, department of Chemical Engineering NIT Durgapur, held on 24-26th August 2020.
9. Attended and actively participated online webinar on “**POST-COVID 19 SUPPLY CHAIN COLLAPSE: CHALLENGES AND SOLUTIONS**” organized by West Bengal State Centre of The Institution of Engineers (India) under the aegis of Production Engineering, held on 23rd August 2020.

10. Attended and actively participated online webinar on “**Advances in Colloidal and Polymeric Systems (ACAPS-2020)**” Organized by colloids & Polymers research group, School of chemical engineering, Vellore Institute of Technology, Vellore, held on 22nd August 2020.
11. Attended and actively participated international online webinar on “**13 C based metabolic flux analysis in bio-talk series-7**” Organized by department of biotechnology, St.Joseph’s College of Engineering, Chennai, held on 21st August, 2020.
12. Attended and actively participated online webinar on “**Wastewater Treatment for Sustainable Development**” organized by West Bengal State Centre of The Institution of Engineers (India) under the aegis of Production Engineering, held on 14th August 2020.
13. Attended and actively participated in an online international webinar on “**non-covalent functionalization of Graphene for super capacitor**” Organized by department of chemical engineering, SSNCE, Chennai, held on 12th August 2020.
14. Attended and actively participated online national webinar on “**How to write a research paper?**” Organized by IQAC, Visakha Institute of Engg & Technology, Narava, VSKP, held on 8th August 2020.
15. Attended and actively participated in an online national webinar on “**Academic Integrity & Plagiarism**” jointly Organized by IQAC & MUCTA, Smt.P.N.Doshi Women’s College, Mumbai, held on 1st August, 2020.
16. Attended and actively participated in an online international webinar on “**Green Fuels: Novel Catalytic Synthesis**” Organized by department of chemical Engineering RBSET, Bich Puri, Agra, U.P, held on 18th July 2020.
17. Attended and actively participated in a one-day international webinar on “**Process Safety for design Engineers**” organized by department of chemical Engineering, GMRIT, Rajam, held during 29th June 2020.
18. Attended and actively participated in a one-day international webinar on “**Student National Symposium IR 4.0**” organized by department of Information Technology Higher College of Technology Muscat, held during 14th June 2020.
19. Attended and actively participated in a one-day international webinar on “**Process industries & its prospective outcomes**” organized by department of chemical Engineering, GIET University, Gunupur, held during 12th June, 2020.

20. Attended and actively participated in a one-day national webinar on "**Emerging trends in nanomaterials for microwave, integrated electronics & cancer applications**" organized by department of BS&H, GMRIT, Rajam, held during 4th June 2020.

Subjects taught:

1. Fluid Mechanics (Momentum Transfer)
2. Process Heat Transfer
3. Mass Transfer Operations-I & II
4. Chemical Reaction Engineering-I & II
5. Chemical Engineering Thermodynamics--I & II
6. Chemical Process Dynamics Instrumentation & Control
7. Process Modelling and Simulation
8. Environmental Studies

Labs handled:

1. Momentum Transfer/ Fluid Mechanics Lab
2. Heat Transfer Lab
3. Mass Transfer Operations Lab
4. Chemical Reaction Engineering Lab
5. Process Dynamics and Control Lab
6. Process Modelling & Simulation Lab

Total Projects guided: (UG=17 & PG=1)

S. No	Selected Project Titles
1	M.Tech: Municipal Solid Waste Management: Bobbili Municipality (2017)
2	Acid leaching of heavy metal ions contaminated soil from industrial areas (2017)
3	Aspen Plus simulation of saponification of E.A using amberlyst-15 as catalyst (2016)
4	Comparative studies of Linde air liquefaction process using Aspen plus (2015)
5	Adsorption of zinc and copper using molecular sieves (2014)
6	Comparison of conversion in batch reactive distillation & batch reactor using different catalysts (2013)
7	Recovery of oleic acid from industrial effluents (2012)
8	Equilibrium studies on adsorption of cobalt (II) over molecular sieves (2011)
9	Biosorption of cu from aqueous solution using Oscillatoria. Splendida (2010)

10	Production of Biogas Using Kitchen Waste (2008)
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Computer Skills:

- *Tools:* ASPEN PLUS, FORCE 2.0, MAT Lab(R2023b), DWSIM.
- Proficient in MS–Office

Professional Skills:

- Design and development of Curriculum to meet the Industry and Societal needs
- Develop and implement innovative instructional methods.
- Guide, lead and mentor students in research projects.
- Evaluate, monitor and mentor student academic progress.
- Participate in departmental and college activities.
- Serve and support functional activities of departmental committees.
- NBA, NAAC, ISO, Timetable, Placement, Alumni Coordination

Administrative Responsibilities:

1. IQAC member at **University level** at GGV, Bilaspur from August 2025 to till date.
2. **Department** Training, Placement & Student Internships coordinator at GGV, Bilaspur from Jan 2025 to till date.
3. Member of UG& PG Curriculum development committee for chemical Engg specialization. At UTAS Muscat, from Oct2017-Dec2024.
4. Member of Advising & registration committee at UTAS Muscat, from Oct2018-Dec2023.
5. Member of examinations committee at UTAS Muscat, from Oct2017-Dec2024.
6. Member of Research activities(R&D) committee at UTAS Muscat, from Oct2018-Dec2023.
7. Project coordinator for Chemical Engg spec. at UTAS Muscat, from Oct2017-Dec2024.
8. Dept. Guest Lecture Organizing Coordinator at GMRIT, Rajam from Aug 2008-April 2017.
9. Department Project coordinator for 2015-16 academic year. (GMRIT, Rajam)
10. Member of department Alumni Association. at GMRIT, Rajam from Aug 2008-April 2017.
11. Member of college anti-ragging. at GMRIT, Rajam from Sept 2007-April 2017.
12. Member of college discipline activities. at GMRIT, Rajam from Sept 2007-April 2017.
13. Member of Academic activities (Monitor the regular academic activities viz.class monitoring, conduct of internal tests, R.A) at GMRIT, Rajam from Sept 2007-April 2017.
14. Member of ISO, NBA& NAAC files update at GMRIT, Rajam from Sept 2007-April 2017.

Reviewer of Journals:

- **Reviewer** for International journal of Mineral processing and Extractive metallurgy (IJMPEM) <http://www.ijmpem.org/reviewers>. Under Science PG (Science Publishing Group).
- **Reviewer** for journal of Chemical Methodologies. https://www.chemmethod.com/reviewer?_action=info
- **Reviewer** for Journal of Hazardous materials, Journal of Material Chemistry and Physics, Journal of Results in Engineering (Elsevier), Journal of Desalination & Water treatment Journal of Institute of Engineers India (IEI).
- **Technical Program Committee member** (scientific and Paper reviewer) & **Chair** of a session at the IEEE 1st international conference on Innovative Engineering Sciences & Technological Research (ICI-ESTR-2024) held on 14-15th of May 2024 at the University of Technology & Applied Sciences, Muscat, Sultanate of Oman.
- **Reviewer** for 12th National Symposium on Engineering Final year projects held on 08-05-23 at University of Nizwa, Oman.
- Appointed as **General Editor & reviewer** for the journal “Indian Journal of Petroleum Engineering (IJPE) from *Lattice Science Publication (LSP)*. <https://www.ijpe.latticescipub.com/editorial-board/>
- **Editorial board member** of “**Scienxt journal of Nano science & Technology**”.
- **Editorship** for the book series titled “**Futuristic Trends in Chemical Material Sciences & Nano-Technology**” under *Iterative International Publishers (IIP)* Volume 3, 2023.

Achievements/Awards:

- Qualified in **GATE–2015** and secured All India Rank of 4174 (Score 264) bearing registration number (CH 66037S1192).
- Qualified in **GATE–2012** and secured All India Rank of 2788 (Score 245) bearing registration number (CH 6195140).
- Received **IELTS** (general Training) (International English Language Testing System) score as (Competent user) from **IDP Oman in 2020** and from **British Council Oman in 2017**.
- Conferred **best Teacher award** from JNTU Kakinada Vice-Chancellor, by **GMRIT** for the **Academic Year 2014-15**.
- Academic Publishing and Information Database (APID: 9654).
<https://apid.journalslibrary.com/apid-profiles/apid/68341>
- AICTE faculty ID (_1-44807214271).

Membership of Professional Society (21):

1. Life Member of Indian Institute of Chemical Engineers (IChE) (LM-41209)
2. Life Member of Institution of Engineers (India) (IEI) (LM-1527074)
3. Life Member of Indian Institute of Mineral Engineers (IIME) (LM-1232)
4. Life Member of Indian Desalination Association (InDA) (LM-377)
5. Life Member of Indian Society for Technology in Education (ISTE) (LM-54751)
6. Life Member of International Association of Engineers (IAENG) (LM-131661)
7. Regular Member of American Chemical Society (ACS) (RM-32450140)
8. Senior Member of Hong-Kong Chemical, Biological & Environmental Engineering Society (HKCBEEES), (SM-101777)
9. Life Member of Chemical Research Society of India (CRSI) (LM-2775)
10. Life Member of Instrument Society of India, Bangalore (ISOI) (LM-2627)
11. Life Member of the Biotech Research Society, India (BRSI) (LM- 2428)
12. Life Member of National Environmental Science Academy (NESAI) (LM-2197)
13. Associate Member of International Society for Development & Sustainability (ISDS) (by email)
14. Life Member of International Assoc. of Research & Developed Org (IARDO) (LM-907(Gold)) under academicians category valid till 31.03.27.
15. Life Member of International Society of Intra Operative Radiation Therapy (ISIORT)
16. Life Member of Green ThinkerZ Society (GT2020LM0008)
17. Life Member of South Asia Institute of Science & Engineering (20201019001)
18. Life Member of Institute for Science, Engineering & Technology Research (2022010127)
19. Guest member of SOCIETY OF CHEMICAL INDUSTRY(SOCI)(236115) till 26.02.2025.
<https://www.soci.org/members>
20. Life Member of Materials Research Society of India (LMB3707)
21. Senior Member of International Association of Carbon Capture (20251020376, from September 2025)

Sponsored Project/Research Project:

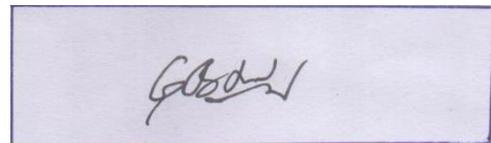
- Dr.Farouq Abdelaziz Abdulrahman Twaiq (PI),Dr.Ibrahim Al-Siyabi(Co-PI) and **Dr.Baburao Gaddala (Co-I)** received a Sponsored Research proposal on “**Characterization and composting of Date palm wastes in Oman**” for the grant of 9400 OMR under Block Funding Programme (TRC/RG)(Project ID: BFP/RGP/EBR/21/126) from 01-12-2021 to 30-11-2023 , Muscat, Oman. <https://rims.trc.gov.om/>

Invited talk:

- I have been invited as foreign delegate (1 Session) for ATAL Sponsored Six-day online FDP on “*Innovative Green Energy Generation and Storage Technologies*”, from 2-12-24 to 07-12-24, Organized by department of Mechanical Engineering, MVGR College of Engineering (A), Chintalavalasa, Vizianagaram 535005 Andhrapradesh, India.

References:

1. **Prof. (Dr.) A. SESHAGIRI RAO**, Department of Chemical Engg, Indian Institute of Petroleum & Energy (**IIP**), Visakhapatnam, A.P. INDIA. Mobile:8332969407. **Mail:**raoseshu@gmail.com
2. **Prof.(Dr.)Narasimha Mangadoddy**, Professor, Department of Chemical Engg, Indian Institute of Technology Hyderabad(**IITH**), Room # 118, E-Block, NH-9, Kandi (V), Sangareddy (M)Medak (Dist),TelanganaState,INDIA-502285,Mobile:9505754134,EMail:narasimha@iith.ac.in.
3. **Prof.(Dr.)PEELA NAGESWARA RAO, Professor**, Department of Chemical Engg, Indian Institute of Technology Guwahati (**IITG**),Assam. INDIA. **Mail:** peelanr@iitg.ac.in.
4. **Prof.(Dr.) M. V. SATISH KUMAR**, Associate Professor, 314A,Molecular Modelling& Simulation Lab, Department of Molecular Biology and Biotechnology, **Tezpur Central University**, Napaam, Sonitpur District Tezpur-784 028, Assam, India, Ph.:+91-8811806866 .Email:venkata@tezu.ernet.in,mvenkatasatishkumar@gmail.com.
5. **Prof.G.CHANDRASEKHAR**, Professor & HOD, Department of Chemical Engg, Pondicherry Engg, College(An autonomous institution of Govt of Pondicherry;affiliatedto**PondicherryUniversity**),Pondicherry,India.**Mobile:**0969898225 4.E-mail:chandresekar@pec.edu.



(Dr.BABU RAO GADDALA)